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ABSTRACT

A Farm Practice Certificate course piloted in the Eyre Peninsula, South Australia, during 1979-80 was evaluated during its development and implementation. Three areas were examined: trainee and master farmer characteristics, effectiveness of off-property education and training activities and the theory modules, and the effectiveness of on-property practical skills training activities. Preliminary surveys identified education and training needs in the region through two questionnaires. Twenty-eight persons applied to enter the pilot course; 27 farms and master farmers were involved. The teaching program was evaluated by continuous assessment of course content by course coordinator and lecturers, pre- and post-testing of each "block" release (on-farm portion of training), trainee reaction for each block release, project and assignment assessments, examination of information contained in practical skills instruction and log-book, and feedback from master farmers. The Farm Practice Training Scheme was found to be highly successful in meeting needs of the farming community. Master farmers and trainees rated it highly as a useful course. (Twenty-eight recommendations to improve content and presentation are made throughout the report; they are also listed in introductory materials. Appendixes, amounting to over one-half of the report, include evaluation instruments and test scores.) (YLB)

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EVALUATION OF THE PILOT CERTIFICATE IN FARM PRACTICE COURSE

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CONTRIBUTORS TO THE PROJECT

The following groups and individuals have made significant contributions to the evaluation project, in many cases on an entirely voluntary basis:

- the course management committee for providing essential course data and responding to suggestions made by the evaluation committee.

- the pilot course evaluation committee for advising staff directly involved in the evaluation exercise and for developing recommendations and endorsing other recommendations prepared by the project team.

- the Rural Studies Programme Committee for endorsing this report, for approving those report recommendations relevant to its brief, and for monitoring further implementation action.

- D. Kuhl and C. Trethewey members of the project team established in the later stages of the project: D. Kuhl for setting up the analysis and reporting methodology; C. Trethewey for preparing working sheets and appendix materials; D. Kuhl assisted by C. Trethewey for preparing working documents for consideration by the evaluation committee, project documents for submission to the Rural Studies Programme Committee and preparation of final reports.

- members of Research and Curriculum Development Branches for administration of the evaluation exercise and submission of recommendations to appropriate persons; in particular J. Skull and R. Schilling were involved in the project to the point where much of the data was collected and some of it analysed.

- master farmers, trainees, lecturers and administrators (in particular C. Trethewey, Course Co-ordinator and R. McEwen, headquarters liaison) for the provision of essential data.

SUMMARY AND RECOMMENDATIONS

The Pilot Certificate in Farm Practice Course (formerly On-Farm Training Scheme) was developed in response to a need for post-secondary agricultural education expressed by farmers throughout Eyre Peninsula, S.A. The pilot course was conducted over an eighteen month period. It incorporated four sessions of training within educational institutions, on farm training supervised by 'master farmers' and a series of projects and field days.

Many organizations contributed to the planning, implementation and evaluation of the scheme. The Commonwealth Government also lent support in the form of a trainee subsidy to master (or trainer) farmers.

It was intended that the pilot course would be evaluated as it was being developed and put into operation. The overall effectiveness of the course would be assessed before additional resources were committed to expanding this type of programme. The particular aspects evaluated were:

- o farm practice education and training needs;
- o characteristics of farmers, farms and trainers;
- o the teaching programme;
- o trainee assessment;
- o master farmer, lecturer and trainee involvement.

Various context, input, process and product questions were addressed in relation to the five aspects mentioned above. Action taken in response to data collected and analysed is reported in three ways.

The Evaluation Committee considered that the scheme was effective in meeting the training needs of the farming community and in increasing trainee competence in farm practices. Further courses on Eyre Peninsula and the presentation of programmes in other agricultural regions were recommended.

A number of other recommendations were made to improve further the content and presentation of this course.

RECOMMENDATIONS

The following recommendations were compiled from those contained in the body of this report. They consist of those developments by the project team and those additional recommendations developed by the evaluation committee. These recommendations were submitted to the Rural Studies Programme Committee for consideration and adoption.

RECOMMENDATIONS DEVELOPED BY THE PROJECT TEAM

IDENTIFYING EDUCATION AND TRAINING NEEDS

1. The procedures used for identifying education and training needs for farms in given regions of South Australia in general be repeated on all occasions when new courses are implemented or when minor local reviews of existing courses are undertaken.

(Section 2.4.1)

THE DEVELOPMENT OF COURSES

2. Courses introduced into new regions be developed using course management.

(Section 2.4.3)

3. Lecturing staff should be involved in curriculum planning and development during the design and delivery phases of the course.

(Section 2.4.3)

TRAINING COURSES FOR MASTER FARMERS AND LECTURERS

4. An induction programme for master farmers be included early in every farm practice training course. The programme should include the following topics:

   - o teaching of basic instruction and supervision skills;
   - o informing participants of their responsibilities;
   - o explanation of how the log-book should be used by the trainees and supervised by the master farmers;
   - o description of procedures used to assess student performance.

(Section 3.1)

BRIDGING COURSES FOR TRAINEES

5. Potential trainees needing bridging courses should be identified on the following basis:

   - o educational skills - year nine level of schooling or below;
   - o practical skills - no previous experience.

   Selection for a bridging course should be based on interview findings rather than on any other single form of pre-testing.

   (Section 3.7)

REMEDIAL COURSES FOR TRAINEES

6. Potential trainees needing remedial courses be identified on the following basis:

   - o literacy skills - reading age of 12 years or less as measured by the Reading Comprehension Test;
   - o numeracy skills - numeracy level of less than 70% as measured by the Farm Practice Numeracy Test.

   (Section 3.7)

DESIGN OF COURSES

7. The characteristics of trainees, master farmers and farms should form the basis for course design and implementation.

   (Section 3.7)

8. The financial farm management and budgeting topics be designed in line with the needs and abilities of course participants.

   (Section 4.9.1)

9. The balance of on and off-property training activities as used in the pilot course be retained.

   (Section 4.9.2)

VENUES FOR COURSES

10. If practicable, at least one session of off-property training activity should be held at Roseworthy Agricultural College or a comparable agricultural education institution.

    (Section 4.9.2)

RANGE OF LECTURERS

11. Range and diversity of lecturers be secured to match locally identified needs.

(Section 4.9.3)

FEEDBACK LEADING TO MODIFICATION OF COURSES

12. Where possible, new major topic areas and heavily revised ones be pre- and post-tested for trainee achievement.

(Section 4.9.5)

13. For new or revised topic areas, trainees should generally be pre-tested and the data used for course design purposes (as well as a guide for measuring achievement). The testing should occur at least two weeks before the particular block release commences.

(Section 4.9.5)

TRAINEE ACHIEVEMENT TESTS

14. The trainee achievement test should be used for two purposes:

    1) as a pre-test to identify those requiring bridging and/or remedial work.

    2) as a post-test to identify those requiring further tuition in order to attain mastery.

(Section 5.1)

LITERACY AND NUMERACY

15. Trainees with low literacy scores should be given remedial teaching in the knowledge that they could be at-risk in regard to block release and project/assignment achievement.

(Section 5.8)

16. Trainees with low numeracy scores should be given remedial teaching in the knowledge that they could be at-risk in regard to practical skills acquisition and overall achievement.

(Section 5.8)

ADDITIONAL RECOMMENDATIONS DEVELOPED BY THE EVALUATION COMMITTEE

IMPLEMENTATION OF COURSES, RESOURCES AND FUNDING

17. Because evaluation has shown that the Certificate in Farm Practice is achieving its aims, and that it is effective in improving and enhancing the skills of trainees in farm practices, this scheme be made available to all sections of the farm community according to need.

(Section 7.1)

18. The Department of Further Education make adequate resources available so that similar training schemes may be offered to all sectors of the farming community.

(Section 7.1)

INVOLVEMENT WITH OTHER ORGANISATIONS

19. That personnel from relevant agricultural education and extension agencies, producer organisations and individual farmers be closely involved in the development and presentation of on-farm training schemes.

(Section 7.2)

20. Liaison between all organisations and lecturing staff be regarded as essential in the planning, implementation and evaluation of the Certificate in Farm Practice programme.

(Section 7.2)

VENUES FOR COURSES

21. All possible venues be considered for Certificate in Farm Practice courses.

(Section 7.3)

FEEDBACK LEADING TO MODIFICATION OF COURSES

22. Feedback provided by trainees and master farmers continue to be sought in future training schemes.

(Section 7.5)

TRAINING OF PART-TIME LECTURERS

23. Short teacher training courses be made available for part-time lecturers.

(Section 7.6)

ON-PROPERTY TRAINING

24. Future farm practice courses use log-books containing more fully prescribed on-property training activities.

(Section 7.7)

25. The log-book be ratified by the course development committee.

(Section 7.7)

OFF-PROPERTY TRAINING

26. Future farm practice courses include comprehensive lists of expected trainee outcomes.

(Section 7.8)

ASSESSMENT TESTS

27. Trainee assessment tests be based upon expected trainee outcomes.

(Section 7.8)

VISITS BY COURSE SUPERVISOR

28. Regular visits to the farm of each trainee by the course supervisor and other relevant personnel be an essential and integral part of the scheme.

(Section 7.9)

The report along with a supporting document "Curriculum materials for the pilot Certificate in Farm Practice course" has been received and adopted by the project Evaluation Committee and the Rural Studies Programme Committee. Both Committees considered that the course was effective in meeting the training needs of the farming community and in increasing trainee competence in farm practice.

Expansion of the Farm Practice Training Scheme into other regions of the State has generally been consistent with the findings and recommendations contained in this document. This report formally verifies the validity of the Certificate in Farm Practice course.

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Chapter 1

CHAPTER 1

BACKGROUND TO AND PURPOSE OF THE EVALUATION STUDY

1·1 BACKGROUND

Support for significantly upgrading training courses in farm practice increased during the 1970s to the point where it was decided to set up the On-Farm Training Scheme. The scheme now referred to as the Farm Practice Course, was piloted in the Eyre Peninsula region during 1979-80. It was also decided to evaluate formally the pilot course.

The information gained from the pilot project, including the formal evaluation of it, was fed into other programmes which have since been implemented in other parts of South Australia. This document reports the development and evaluation of the pilot course along with action taken to modify other courses implemented during 1980 across the state.

1·2 PURPOSE OF THE FARM PRACTICE COURSE

The initial major purpose of the Farm Practice Course was to equip farmers and potential farmers with the knowledge and skills to enable them to farm efficiently and profitably. This was pursued within the context of on-farm training; persons employed on farms can participate in continuing agricultural education while at the same time maintaining their labour input to the farm. This characteristic was emphasized in the course objectives set for the on-property training component of the course:

'The objective of the farm practice (course) is to integrate the more formal teaching of the block release periods with farm experience so that you can more fully relate the principles being taught to commercial reality.'

Instruction and Log Book (p. 1, 1978)

The purposes of the farm practice course have been revised subsequently and are now:

(a) to enable trainees to perform a range of farm skills completely;

(b) to develop a critical awareness of alternative farm practices; and

(c) to enable trainees to seek, evaluate and apply farming information.

1·3 HISTORICAL BACKGROUND TO THE PILOT COURSE

The *Report of the Committee of Enquiry into Agricultural Education, Research and Extension in South Australia* (pp 54 and following, 1971) contained recommendations for the training of future farmers and farm managers. The United Farmers and Stockowners Association (UF & S[1]) subsequently investigated farmer training schemes in the United Kingdom, a number of other European countries, in Canada and in the U.S.A. Western Australian and Victorian schemes were also studied. This led to support being given for some form of 'on-farm' or 'on-property' training so that practical skills would be emphasized in the 'on-farm' setting. Knowledge and understanding skills would be taught concurrently with the practical skills programme in off-property locations.

During 1976, the Department of Further Education (DFE) conducted a survey of training needs for farmers in the Eyre Peninsula region. The decision to consult over 120 farmers was undertaken in response to concern expressed by farmers in the area. Two major deficiencies were highlighted by the survey. They were the lack of practical skills courses which could be undertaken by persons new to farming, and, the shortage of general agricultural courses in the Eyre Peninsula region.

A meeting of farmers was held at Cummins in March 1977 to allow the DFE and the UF & S to present their views at a public gathering. Support for training was sufficiently encouraging to warrant a second meeting in May of the same year. The objectives of the meeting were wide-ranging:

- to obtain formal support for a farm practice course;
- to determine general course content;
- to select members of a Course Development Committee;
- to establish a firm estimate of the number of trainees for an initial course.

All objectives were achieved, and in particular a firm commitment was given for thirty-five trainees to commence a pilot course.

A lecturer in rural studies was appointed to Eyre Peninsula Community College in July 1977. His major role was to coordinate the development and implementation of the pilot course. As such he was referred to as the course coordinator. Following the preliminary meetings, a course development committee was formed. The elected members of the committee were:

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(1) Formerly United Farmers and Graziers Association (UF & G).

- six farmers from lower Eyre Peninsula;
- two intending trainees;
- Regional Agricultural Economist, Department of Agriculture and Fisheries, at Pt. Lincoln;
- Principals of Cummins and Cleve Area Schools and Principal of Urrbrae Agricultural High School within the Education Department;
- Principal of Eyre Peninsula Community College, (convener of the committee) a representative of the college council, and the course coordinator (secretary of the committee);
- Representative from Roseworthy Agricultural College;
- Chairman of the Education Committee and the training officer, United Farmers and Stockowners Association;
- Project Officer (On-farm Training Scheme), the Curriculum Development Branch of the Department of Further Education;
- Industrial Training Officer, Training Branch, Department of Employment and Youth Affairs.

The Course Development Committee was given authority to direct the development of the proposed course on behalf of the trainee/farmer group associated with the pilot course. Meetings were held at appropriate intervals during the year to undertake developmental work, and the trainee/farmer group was consulted about a number of major course proposals on several occasions during this developmental stage. Farmer representatives were compensated at Public Service rates, for travel and meal expenses associated with Course Development Committee meetings.

The course development committee completed its task by the time the pilot Farm Practice Certificate course commenced operations during February, 1978. The decision was then taken to alter the role of the original committee to that of a course management group. The course management committee thus formed continued to operate for the next eighteen months, this being the duration of the pilot farm practice course.

The 28 trainees taking the course all worked on farms located in the Eyre Peninsula region. Each trainee was placed under the supervision of a master (or trainer) farmer for the eighteen months period. Most of the off-property teaching was given at Eyre Peninsula Community College and at Roseworthy Agricultural College.

1·4 PURPOSE OF THE EVALUATION STUDY

It was decided that the pilot course would be evaluated so that detailed answers could be given to questions relating to the effectiveness and efficiency of the new course. It was necessary for the level of detail and accuracy to be sufficient to facilitate sound planning and development of a

DFE farm practice programme throughout South Australia. Placing reliance solely on informed comment from programme participants was not considered adequate for course development purposes. Nevertheless, such informed comment was not ignored as evaluation input.

It was decided three major areas would be examined:

- o trainee and master farmer characteristics;
- o effectiveness of the off-property education and training activities, and in particular, the theory modules; and
- o effectiveness of the on-property practical skills training activities.

Specific aims were developed for each of these major areas:

1.4.1 CHARACTERISTICS OF PARTICIPANTS

(a) A student profile would be developed containing information about:

- o age;
- o highest school year achieved;
- o farm experience and type of enterprise on which training would be received;
- o literacy level;
- o numeracy level;
- o preference for certain types of subjects and for particular methods of study.

(b) A master farmer profile would be developed. It would contain information relating to:

- o location of farm;
- o type of farming enterprise;
- o willingness to participate in various ways;
- o preference for certain types of training of trainees.

1.4.2 EFFECTIVENESS OF OFF-PROPERTY EDUCATION AND TRAINING ACTIVITIES

(a) Pre and post tests of student performance would be used to indicate where learning had been adequate and if not, where it could be improved.

(b) Methods of teaching and subject content would be examined in relation to student ability levels.

1.4.3 EFFECTIVENESS OF THE ON-PROPERTY TRAINING PROGRAMME

(a) Master farmers would assess and report on the mastery of practical farm skills.

(b) The Course Coordinator would assess independently trainee competence in prescribed practical skills.

1·5 APPROACH TO THE EVALUATION

It was accepted that decisions would be required on the basis of information arising from context, input, process and product evaluation.(2) The information would be described in two ways.

1. The contingencies (i.e. the causes and effects). The task was one of identifying the outcomes which were contingent upon particular antecedent conditions and instructional transactions.

2. The congruences. The intents of the programme and the outcomes were compared.(3)

1.5.1 CONTEXT

The identification of the characteristics of trainees and master farmers would serve a background or contextual purpose. The information obtained would assist in formulating objectives for the course. The information would be contingent in that data would depend upon conditions existing prior to the provision of the course. It would also be congruent in that a match would be sought between intended course delivery and the actual course delivered.

1.5.2 INPUT

The potential effectiveness of the 'on' and 'off' property education and training activities would be assessed during the course development stage. The evaluation of the operation of the Course Development Committee would be largely incremental and innovative, especially in regard to the setting of the course objectives, organization of the teaching programme and setting up of a course management group. Decisions affecting minor changes would occur in a non-formal ad hoc fashion.

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(2) The evaluation approach uses elements of the CIPP evaluation approach described by D. Stufflebeam in his book Educational Evaluation and Decision making.

(3) A full discussion of contingency and congruence is found in Stake, R.E. "The countenance of educational evaluation", Teachers College Record 68(7) pp. 523-540.

1.5.3 PROCESS

The process evaluation component would concentrate mainly on the identification of defects in the programme so that proper action can be taken to eliminate them. This would be an ongoing activity during the course implementation phase.

The evaluation report would also contain a record of the procedures used as well as reporting action taken as a result of the decisions made.

1.5.4 PRODUCT

The quality of the course as presented in the 'on' and 'off' property settings would be examined during the product evaluation phase. Outcomes would be considered using context, input and process information as required. These outcomes would be reported so as to verify the level of quality of the course. They would also have consequential effects on other courses mounted elsewhere in the State of South Australia.

Due regard would be given to the following standards of evaluation: feasibility, usefulness, probity and technical quality. Further details are reported in Appendix 13 where the standards of evaluation are applied particularly to the analysis and reporting phases.

1·6 DATA SOURCES

Major sources of data were in the form of trainee, master farmer and lecturer responses. Feedback from trainees was obtained mainly through questionnaires while that from master farmers occurred via questionnaire and interview. Lecturer response was largely in oral form. Trainee assessment data was also used.

It was then arranged to produce a series of working sheets which outlined the results, findings and actions to be taken. These then served as a basis for producing a 'fleshed-out' analysis as contained in this document.

1·7 USEFULNESS OF FINDINGS AND RECOMMENDATIONS

Findings and recommendations developed by the evaluation project team have been endorsed by the evaluation committee (members listed in Appendix 1) set up to advise project team members. The DFE Rural Studies Programme Committee (1) would consider for approval those recommendations within its jurisdiction and endorse others prior to forwarding them to senior officers for ratification.

Action in relation to particular recommendations is reported in the last section of this document. The following organizations have been the major agents for such action:

- Department of Agriculture;
- Department of Employment and Youth Affairs;
- Department of Further Education;
- United Farmers and Stockowners Association.

It is quite impossible to pin-point the day or month when particular recommendations were implemented. Rather, the actioning process has been gradual rather than sudden and has extended over a period from the beginning of 1978 to well into 1980. Some examples of actions taken are listed below:

- use by course coordinators of survey materials designed to obtain profiles of farms, trainees and master farmers. This has helped coordinators to fine tune courses to meet local needs. Counselling of potential trainees has followed the pattern developed and shown to be valid for the pilot course;
- resources allocations for particular courses is now based on the evaluated pilot course experience;
- this evaluation document itself has an important promotional training effect in that evidence is given as to the validity and effectiveness of the Farm Practice Course.

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(1) The Rural Studies Programme Committee is responsible for developing education and training programmes for the rural industry. The Committee contains representatives from industry, DFE and other government departments.

Chapter 2

CHAPTER 2

PRELIMINARY SURVEY OF EDUCATION AND TRAINING NEEDS

2·1 INTRODUCTION

Prior to the development of the pilot Farm Practice Certificate course it was found necessary to identify education and training (1) needs in the Eyre Peninsula region. Two questionnaires were developed to obtain estimates of numbers of persons requiring training as well as background characteristics of trainees and master farmers. Views on course content and teaching approach were also sought.

The first questionnaire (Appendix 2a) was completed by 24 respondents at a public meeting at Cummins in March, 1977. The second questionnaire (Appendix 2b) was presented at a subsequent meeting at Cummins in May, 1977. The 35 potential trainees responding on the second occasion comprised most of the original respondents. Views obtained from the first survey were confirmed and in addition more detailed information was sought on location, attendance, subject and student funding matters. Thirty one potential master farmers also responded (see Section III of the second questionnaire) on matters relating to farm experience, trainee supervision and the like.

The survey data was analysed and then used to generate findings which in turn became the basis for the curriculum planning and development decisions made. A longer term benefit was seen to be the provision of a methodology to undertake needs surveys before implementing farm practice courses in other regions of South Australia.

2·2 RESULTS OF PRELIMINARY SURVEY OF TRAINING NEEDS

2.2.1 ESTIMATED TRAINING REQUIREMENT

Twenty four potential trainees were formally recorded as at March, 1977. This increased to 35 by May of the same year.

2.2.2 CHARACTERISTICS OF POTENTIAL TRAINEES

The following results were based on the responses from the first group of 24 potential trainees. (n = 24)

---

(1) 'education and training' is hereafter referred to as 'training'.

TABLE 1 AGE RANGE

AGE RANGE	% POTENTIAL TRAINEES
15 - 20 YEARS	92
21 - 30 YEARS	4
31 - 45 YEARS	4

Over 90% of potential trainees were in the 15-20 year old age group.

TABLE 2 YEARS OF SCHOOLING

YEARS OF SCHOOLING	% POTENTIAL TRAINEES
9	9
10	33
11	33
12	25

9% of potential trainees had achieved only two years of secondary schooling.

25% of potential trainees had attended secondary school for 5 years.

TABLE 3 FARMING EXPERIENCE

FARM EXPERIENCE	% POTENTIAL TRAINEES
0 YEARS	8
1 OR MORE YEARS	92

92% of potential trainees had 1 or more years of farming experience.

TABLE 4 TYPE OF FARMING ENTERPRISE

TYPE OF FARMING ENTERPRISE	% POTENTIAL TRAINEES
BEEF	67 *
CEREALS	100 *
PIGS	21 *
SHEEP	100 *

* many farms were multi-purpose

All intending participants worked on farms having cereal and sheep enterprises.

2.2.3 PREFERENCES OF POTENTIAL TRAINEES

Potential trainees were asked to indicate their preferences in regard to the following matters:

TABLE 5 — LENGTH OF 'BLOCK' RELEASE (n = 24)

LENGTH OF 'BLOCK' RELEASE	% POTENTIAL TRAINEES
2 WEEKS	46
3 WEEKS	54

Potential trainees were fairly close to being evenly divided on the matter of training being held over 2 or 3 week 'blocks'.

TABLE 6 — LOCATION OF 'BLOCK' RELEASE (n = 35)

LOCATION OF 'BLOCK' RELEASE	% POTENTIAL TRAINEES
ADELAIDE	51
PORT LINCOLN	34
NO PREFERENCE	15

Just over 50% of potential trainees preferred Adelaide as a location for the 'block' release part of their course.

(1) Suitable months for holding 'block' release sessions (n = 35).

89% of potential trainees indicated that March and September would be suitable months for 'block' release sessions.

(2) Intention to take the course regardless of NEAT subsidy (n= 35).

60% of potential trainees (21 persons) indicated that they were willing to participate regardless of the availability of a training subsidy.

29% were not prepared to participate without supporting funding for students, while 11% were undecided.

(3) Willingness to undertake Farm Bookkeeping by correspondence (n = 35).

80% of potential trainees were prepared to undertake studies in Farm Bookkeeping by correspondence prior to March, 1978.

(17% were not prepared to undertake study while the remainder were undecided).

(4) Willingness to undertake Farm Business Management I by correspondence (n = 35).

80% of potential trainees were prepared to study Business Management I by correspondence during the 18 month training period.

(6% responded in the negative, while 14% were undecided).

(5) Willingness to attend day and night classes (n = 35).

71% of potential trainees indicated that they were willing to attend day and night classes during the 18 month training period.

(20% responded in the negative and 9% were undecided).

2.2.4 INFORMATION ABOUT POTENTIAL MASTER FARMERS

Thirty-one master farmers responded to Section III of the questionnaire presented at the May, 1977 meeting at Cummins.

(1) Years of farm experience

The average farming experience was 30 years. All farmers had 15 or more years of experience.

(2) Capability to act as a master farmer

81% of potential master farmers were confident that they were capable of providing on-farm skill instruction. The remaining 19% were undecided.

(3) Willingness to undertake a short induction course

78% of potential master farmers were prepared to undertake a short induction course (19% responded in the negative and 3% were undecided).

(4) Willingness to accept trainees on a rotational basis

48% of possible master farmers were willing to accept students on a rotational basis. (32% responded in the negative and 24% were undecided).

2.2.5 PREFERENCES REGARDING COURSE CONTENT

An outline of proposed course content was circulated for comment by 34 potential trainees. Possible master farmers were also invited to make comment.

Data supplied by potential trainees was collated in the following way. Each topic listed was scored on a weighted basis with four points being given to

the 'very important' ratings ranging down to one point for 'not very important' category. The aggregated amounts are listed below in descending order of aggregated score.

TABLE 7 PREFERENCES REGARDING COURSE CONTENT

TOPIC	WEIGHTED POINTS SCORE
AGRICULTURAL MECHANICS	127
SHEEP HUSBANDRY	126
CROP MANAGEMENT	121
FARM BOOK-KEEPING	121
PASTURE MANAGEMENT	120
AGRICULTURE WELDING	115
BUSINESS MANAGEMENT (farming)	112
AGRICULTURAL CONSTRUCTION	109
SOIL SCIENCE	109
PEST AND WEED CONTROL	103
BASIC ENGINEERING WORKSHOP PRACTICE	96
ANIMAL BREEDING	94

2·3 COMMENTS , ACTION TAKEN AND OTHER ACTION RECOMMENDED

2.3.1 TRAINING REQUIREMENT

Planning of the course proceeded on the basis that a minimum of 24 trainees would commence studies in February, 1978. This represented a viable number of students.

2.3.2 CHARACTERISTICS OF POTENTIAL TRAINEES

It was planned that:

(1) the majority of students would be less than 20 years old and so would probably require more guidance than say adults in their mid-twenties;

(2) there would be a wide range of basic educational skills, because years of schooling ranged from 9 to 12;

(3) those with nine years of schooling would possibly need basic educational skills training;

(4) the majority of students had practical farm experience. This would be an advantage except when incorrect practices had been acquired. Those with no previous practical experience would possibly need closer supervision and more intensive practical skills training; and

(5) training in cereal and sheep farming would be necessary for all trainees. Less emphasis would be placed on beef farming while pig husbandry would not be included.

2.3.3 PREFERENCES OF POTENTIAL TRAINEES

Course planning and development proceeded on the basis that:

(a) the 'block' [1] training sessions would be between two and three weeks in length. (The decision was taken to run three week blocks);

(b) given no serious financial or administrative constraints some or all of the 'block' training sessions would be held in or close to Adelaide. The balance could be held in Pt. Lincoln. In fact a decision was finally made to hold 'block' release sessions at Pt. Lincoln and at Roseworthy Agricultural College (approximately 60 km north of Adelaide).

(c) 'block' training sessions should if possible be held during March and September;

(d) the minimum figure of 24 trainees stated earlier was confirmed as a reasonable estimate. Including the 'undecided' group, 25 persons indicated that they would be prepared to participate even if NEAT funding were not available;

(e) Farm Bookkeeping would attract 80% of trainees if offered by correspondence prior to the commencement of the course;

(f) Farm Business Management I would attract at least 80% of trainees if offered by correspondence during the 18 month training period;

(g) day and night classes would be supported by a clear majority of students.

2.3.4 INFORMATION ABOUT POTENTIAL MASTER FARMERS

Curriculum planning and development proceeded on the basis that:

(a) all master farmers would have 15 or more years of farm experience. This amount of experience would be more than adequate for a master farmer to have become competent in a range of practical farm skills;

(b) most farmers would be confident of handling the role as master farmer. The remainder who were initially undecided would probably become confident of their capability after a suitable period of induction;

(c) most farmers would be prepared to attend a short induction course;

(d) close to half of master farmers would be prepared to accept trainees on a rotational basis. Any scheme of rotation would therefore need to be operated on a limited basis involving only those master farmers

(1) The word 'block' as in 'block' training refers to training sessions taken by employed persons who are released from their employment to undertake study for periods of one week or more. Upon completion of the 'block' training sessions, the trainees return to their previous employment. The phrase block release refers to period that trainees are released by employers.

who were willing to participate. Students lacking opportunity for gaining experience in areas not provided within their particular farm setting would be given first priority.

The course management committee agreed that all master farmers should attend a two day induction course. The proposed course was developed and piloted in March, 1978 using the six farmer representatives on the management committee. The aims, programme and respondent comments are shown in Appendix 3. It was decided to implement the induction course for all master farmers who wished to attend.

2.3.5 PREFERENCES REGARDING COURSE CONTENT

The weighted points scores for the various topics gave a rough measure of importance. The Course Development Committee decided that all topics should be included in the course but with less emphasis being given to basic engineering workshop practice and to animal breeding. Once actual course participants were known, it was found necessary to modify the course to fit in with particular needs, e.g. the proposal to undertake Farm Bookkeeping by correspondence before March, 1978 was dropped when student literacy and numeracy problems became apparent.

2·4 GENERAL COMMENTS AND RECOMMENDATIONS

(1) The following recommendation refers to the methods outlined on the preceding pages for identifying training needs for regions outside the Eyre Peninsula region.

> RECOMMENDATION 1
>
> The procedures used for identifying education and training needs for farms in given regions of South Australia should be used on all occasions when new courses are implemented or when minor local reviews of existing courses are undertaken.

(2) Analysis of particular subject requirements by course management committees could be handled in the following way:

- Management Committee prepare a draft list of duties carried out by farmers
- the list of occupational duties is verified at a subsequent committee meeting

- o the Committee considers two questions in relation to each duty

  (1) how vital is it that a trainee farmer should receive training outside of farm property resources?

  (2) how important is it that trainees should be competent in these areas?

- o the Committee then decides on particular 'on' and 'off' property training activities on the basis of the information obtained.

(3) Data collected in the following two sections confirm that lecturers and course participants were keen to be involved continuously in the development and management of the course.

Participants in courses held subsequent to the pilot course have increasingly contributed to course content. Thus the course management committees have become the focus for course development action.

RECOMMENDATION 2

Courses introduced into new regions should be developed using course management committees.

RECOMMENDATION 3

Lecturing staff should be involved in curriculum planning and development during the design and delivery phases of the course.

CHAPTER 3

SURVEY OF TRAINEES , MASTER FARMERS AND FARMS

3·1 INTRODUCTION

Twenty eight persons applied to enter the pilot Farm Practice Certificate course. All were employed on a farm property and all were accepted as trainees. Twenty seven farms (and thus 27 master farmers) were involved.

A two day master farmer induction course was conducted on April 3-4, 1978 for the 24 master farmers who attended. The aims of the induction course were to:

(1) improve the instruction and supervision skills of master farmers;

(2) inform master farmers of their responsibilities as a supervisor.

Feedback from participants showed that other topics should be included in future induction courses:

(a) explanation of how to use the 'Practical skills instruction and log book 1978-79' (see *Curriculum Materials for the Farm Practice Course: 1978-79*[1], item 1);

(b) description of the procedures used to assess student performance.

RECOMMENDATION 4

An induction programme for master farmers should be included early in every farm practice training course. The programme should include the following topics:

- o teaching of basic instruction and supervision skills;
- o informing participants of their responsibilities;
- o explanation of how the log book should be used by the trainees and supervised by the master farmers;
- o description of procedures used to assess student performance.

Induction courses have recently been run by the Training and Development Branch of the Department of Further Education in conjunction with local

(1) A publication produced by the Department of Further Education in 1980.

DFE colleges at which the Farm Practice Course is being presented. Thus the above recommendation is already being actioned.

Most of the following data has come from trainee and master farmer record cards. The remaining data has been taken from comments provided by master farmers during 1978.

3·2 CHARACTERISTICS OF TRAINEES

Appendix 4 contains raw data relating to trainee characteristics. Additional data sources, for instance that from master farmers, are included where appropriate.

3.2.1 AGE AS AT MARCH 1978

TABLE 8 AGE AS AT MARCH 1978

AGE	% OF TRAINEES
15 YEARS	4
16 YEARS	24
17 YEARS	60
18 YEARS	4
19 YEARS	4
20 YEARS	4

All except three trainees were less than 18 years old at the time of commencement of the course.

Some farmers felt that trainees should be within the same age group. They suggested that maximum and minimum ages should be specified to ensure that this would happen.

3.2.2 YEARS OF SCHOOLING

75% of trainees had completed 10 or 11 years of schooling.

14% had spent five years at secondary school while 11% had completed two years of secondary education.

TABLE 9 YEARS OF SCHOOLING

YEARS OF SCHOOLING	% OF TRAINEES
9	11
10	36
11	39
12	14

3.2.3 FARMING EXPERIENCE (continuous and full-time)

TABLE 10 FARMING EXPERIENCE (continuous and full-time)

FARM EXPERIENCE	% OF TRAINEES
0	25
1	43
2	21
3	4
4	0
5	7

25% of trainees had no previous full-time farm experience.

64% of trainees had one or two years experience while 7% had 5 years experience.

Some master farmers felt that trainees should have at least one year of farm experience before entering the course. On the other hand some other farmers felt that trainees should enter the Farm Practice Training Scheme as direct entrants from secondary school.

Master farmers generally agreed that difficulties could arise because of the wide range in experience of the group.

3.2.4 LITERACY SCORE

A diagnostic literacy test (see *Curriculum Materials for the Farm Practice Course*, item 2 - Reading Comprehension Test) was developed from the *Gapadol Reading Comprehension Test*.

11% of the trainees (4 persons) scored 50% or less. Their reading ages were subsequently assessed at 8, 10, 10.6 and 11 years (see *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 2b - Reading age assessment).

TABLE 11 LITERACY SCORE

% RANGE ON LITERACY TEST	% OF TRAINEES
40•49	11
50•59	29
60•69	29
70•79	21
80•89	7
90•100	4

Some master farmers expressed concern that certain trainees had difficulty with their reading and consequently were struggling with the course. It was generally agreed that a remedial course was appropriate.

3.2.5 NUMERACY SCORE

A diagnostic numeracy test called the *Farm Practice Numeracy Test* (see *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 3 - The Farm Practice Numeracy Test) was developed from the *Croydon Park Numeracy Test* to identify those trainees who were likely to experience difficulty with numerical skills required for the course.

TABLE 12 NUMERACY SCORE

% RANGE OF NUMERACY SCORES	% OF TRAINEES
10 - 29	4
30 - 49	11
50 - 69	32
70 - 89	35
> 90	18

47% of trainees (13 persons) scored less than 70% on the numeracy test, this figure being considered to be the mastery level point for coping with the course.

Master farmers were generally concerned about metrication and felt that trainees should be able to work with metrics.

3·3 COMMENTS, ACTION TAKEN AND FURTHER ACTION RECOMMENDED ON TRAINEES

Information about the characteristics of trainees agreed in the main with that obtained in the preliminary survey. Thus except for minor modifications the statements below are in line with those comments made in Chapter 2.

3.3.1 AGE AS AT MARCH 1978

All trainees were less than 21 years of age and were considered to be within the same age group. It was felt that persons outside this age range could be enrolled provided their numbers were not too large (say 4 or 5 persons as a maximum).

3.3.2 YEARS OF SCHOOLING

As the years of schooling experienced by trainees varied from 9 to 12 it was felt that those with 9 years of schooling would probably need some basic educational skills training. Some of these had more practical skills training than most trainees. This advantage could possibly balance the previous disadvantage in that any surplus time arising from a reduced period spent on practical skills training could be put into additional study.

3.3.3 FARMING EXPERIENCE

Keeping in mind 3.3.2 above, it was intended to use discussion as much as possible during teaching sessions to allow experiences to be shared. Discussion would also be encouraged during field sessions and on other occasions where practical experience was being gained.

3.3.4 LITERACY TEST SCORES

Lecture notes were developed which required key words to be inserted in the spaces provided on the notes. This meant that all trainees, including those with very low reading ages, would obtain a record of the major points covered during each lesson. More capable trainees were able to add additional points as required. A sample of the lecture notes used is shown in *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 4 - 'Digestive system - sample page from lecture notes'.

It was also considered necessary to correlate the *Reading Comprehension Test* scores against the *Gadapol Reading Comprehension Test*. The procedures to be followed are outlined in the report by J.M. Saunders and C.J. Smith. *The Croydon Park College Intervention Programme*, Croydon Park College of Further Education, November 1979. The purpose of such an exercise would be to establish that the calculated reading ages are valid.

3.3.5 NUMERACY TEST SCORES

All trainees participated in a remedial basic arithmetic course. Two kinds of sessions were arranged. The first consisted of two booklets and audio-tape for self-paced work at home. The work book and assignments are contained in *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 5 - 'Basic arithmetic course - comments, sample page and

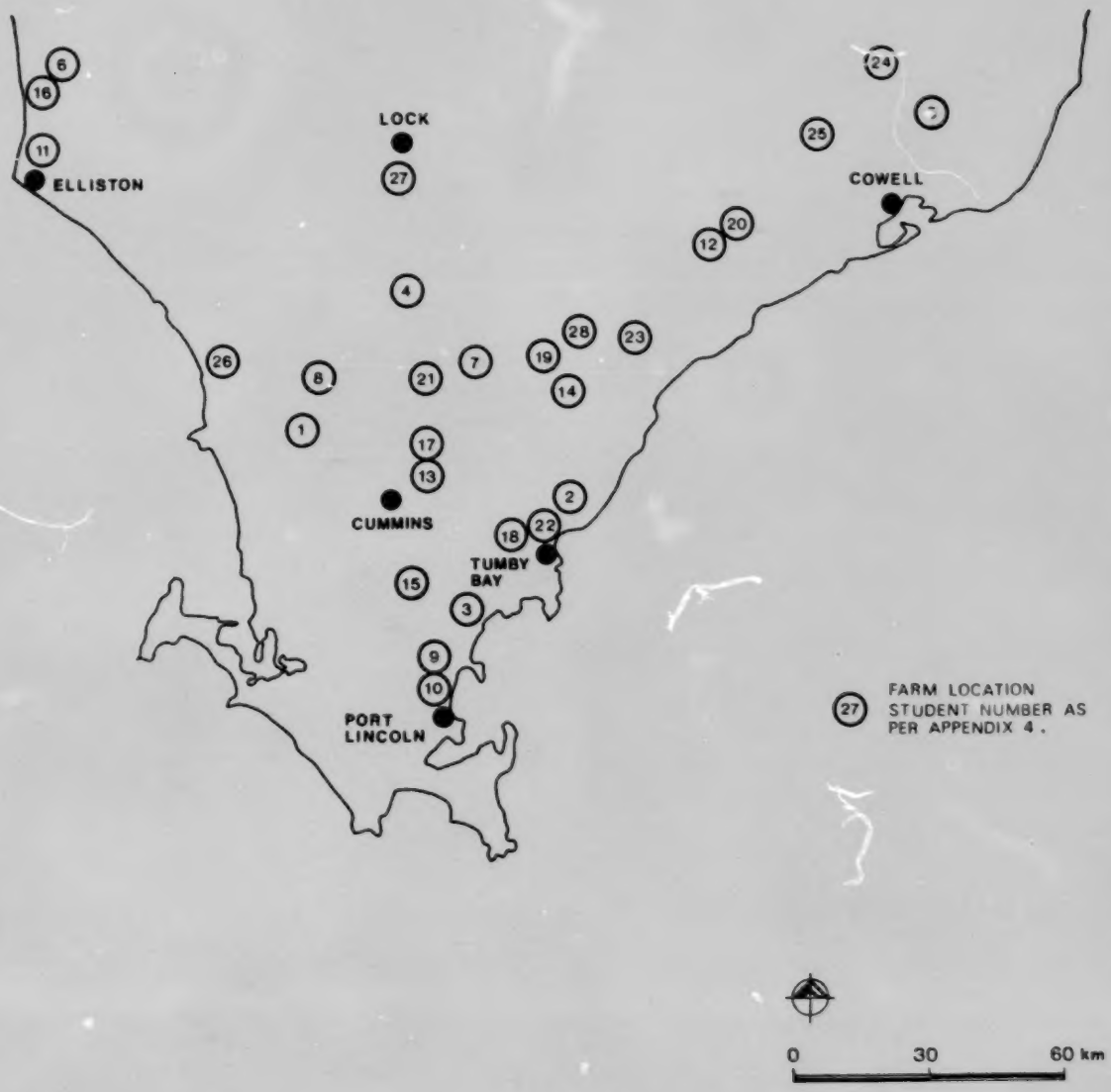
results sheet'/ The second session consisted of several evening meetings conducted by the course coordinator for eight trainees who were still experiencing difficulties with the self-paced basic arithmetic course materials.

3·4 CHARACTERISTICS OF FARMS AND FARMERS

Twenty eight trainees enrolled from twenty seven farms. Thus twenty seven master farmers were involved.

3.4.1 LOCATION OF FARMS

MAP 1 LOCATION OF FARMS



All of the trainees were employed on farms in the Southern Eyre Peninsula region (location according to post code is shown in Appendix 5). Master farmers generally agreed that if farms were too widely dispersed excessive travel would result from attending field days and meetings.

3.4.2 TYPE OF FARMING ENTERPRISE

TABLE 13 **TYPE OF FARMING ENTERPRISE**

TYPE OF FARMING ENTERPRISE	% OF TRAINEES
BEEF CEREALS AND SHEEP	57
CEREALS AND SHEEP	43

57% of trainees were employed on farms which incorporated beef, cereals and sheep enterprises. The remainder handled cereals and sheep.

Master farmers were divided over the need to include cattle as a part of the course.

3.4.3 SIZE OF FARMS

TABLE 14 **SIZE OF FARMS**

AREA OF FARM (HECTARES)	% OF FARMS
0 - 1000	61
1000 - 2000	25
> 2000	14

61% of trainees were employed on farms of less than 1000 ha. Average farm size was 1100 ha.

3.4.4 ANNUAL AVERAGE RAINFALL

TABLE 15 **ANNUAL AVERAGE RAINFALL**

ANNUAL AVERAGE RAINFALL (MM)	% OF FARMS
< 300	4
300 - 500	86
> 500	10

86% of trainees were employed on farms with 300-500 mm rainfall. Average rainfall was 415 mm.

3.4.5 MASTER FARMER - TRAINEE RELATIONSHIP

89% of trainees had their fathers as master farmers. The balance occupied an employer-employee relationship.

Several master farmers indicated that lack of communication with their trainees could become a problem during the course.

3·5 COMMENTS, ACTION TAKEN AND FURTHER ACTION RECOMMENDED ON FARMS & FARMERS

Characteristics of farms and farmers as identified by the survey were considered by the course management committee, the course coordinator and others during the delivery of the course. These characteristics were generally consistent with those obtained for potential client groups.

3.5.1 FARM LOCATION

Costs were minimized by having all trainees located within a relatively small region.

3.5.2 TYPE OF FARMING ENTERPRISE, FARM AREA AND RAINFALL

As the importance of cattle tends to fluctuate with economic change, the course management committee decided to also include in the course studies relating to cattle on the basis that they may assume prominence in the near future.

It was agreed that teaching would concentrate on mixed farming in cereals and sheep on medium sized properties having adequate rainfall.

3.5.3 MASTER FARMER-TRAINEE RELATIONSHIP

At the end of the course, some master farmers commented on how relationships with trainees had improved during the course. Trainees improved their capability to discuss problems and showed increased keenness to become involved with the farm work.

3·6 SUMMARY OF SURVEY

- the typical farm employing a trainee, comprised 1100 hectares and averaged 415 mm of rainfall;

- o all of the farms had cereal and sheep enterprises and about half of them had cattle as well;
- o most of the trainees had their father as master farmer;
- o all the farms were located within 200 km of Port Lincoln;
- o all trainees were less than 21 years;
- o most trainees had 10-11 years of schooling, and equal proportions had 9 or 12 years schooling;
- o most trainees had some farming experience;
- o a small minority of trainees had reading difficulties. The majority of trainees did not have mastery in basic numeracy at entry into the course;
- o characteristics of the trainees, master farmers and of farms were consistent with those identified for potential clients;
- o planning actions taken on the basis of the above were generally confirmed by data collected from trainees after the course commenced.

3·7 RECOMMENDATIONS

RECOMMENDATION 5

Potential trainees needing bridging courses should be identified on the following basis:

- o educational skills - year 9 level of schooling or below;
- o practical skills - no previous experience.

Selection for a bridging course should be based or interview findings rather than on any other single form of pre-testing.

Trainees requiring remedial courses were identified on the following basis:

(1) LITERACY SKILLS

A reading age of 12 years or less as measured on the *Reading Comprehension Test* (reference *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 2) was used as the cut-off point for

remedial action. Although it was considered desirable to validate the *Reading Comprehension Test*, it was accepted that the existing test would be adequate until such time as an improved version could be validated against the *Gadapol Reading Test*.

(2) NUMERACY SKILLS

A numeracy level of less than 70% as measured by the *Farm Practice numeracy Test* (reference, *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 3) was chosen as a suitable level for mastery. Although it was considered desirable to validate the *Farm Practice Numeracy Test*, it was accepted that the existing test would be adequate until such time as an improved version is developed.

RECOMMENDATION 6

That potential trainees needing remedial courses be identified on the following basis:

- o literacy skills - reading age of 12 years or less as measured by the *Reading Comprehension Test;*
- o numeracy skills - numeracy level of less than 70% as measured by the *Farm Practice Numeracy Test*.

RECOMMENDATION 7

The characteristics of trainees, master farmers and farms should form the basis for course design and implementation.

CHAPTER 4

DESCRIPTION AND EVALUATION OF THE TEACHING PROGRAMME

4·1 INTRODUCTION

The teaching programme was evaluated in the following way:

- o continuous assessment of course content by the course coordinator and lecturers;
- o pre and post testing of each 'block' release;
- o trainee reaction questionnaire for each 'block' release;
- o project and assignment assessments;
- o examination of information contained in the practical skills instruction and log-book;
- o feedback from master farmers.

The data collected from these sources is analysed and interpreted in this section, except that special attention is given into the system of assessment devised to measure student performance.

4·2 GENERAL DESCRIPTION OF THE TEACHING PROGRAMME

4.2.1 STUDY SESSIONS

The course was designed to be conducted over a total period of 18 months. Four study release periods, each of 3 weeks duration, were to be held at times of low farming activity according to the seasonal demands of the Eyre Peninsula region. The timing of these release periods was set at March and September of 1978 and 1979.

A feature of the 'block' release periods was that trainees could be grouped in one location where suitable teaching resources were available. This meant that all trainees had access to materials and equipment that might not have been present in some of the less favoured on-farm environments. Presentation of a more uniform curriculum was therefore possible. The first, third and fourth 'block' releases were conducted at the Eyre Peninsula Community College and the second was held at Roseworthy Agricultural College. The total number of class contact hours was 768 hours. The average over the four study releases was 192 hours (see Appendix 6).

4.2.2 LECTURERS

As far as possible, trainees were exposed during study release to those people in the community who provide farming information. Thus, the teaching programme was presented by DFE and Roseworthy Agricultural College lecturers, Department of Agriculture Extension Officers, other Government Department representatives and farmers and people from private enterprise. Appendix 6 contains a breakdown of lecturing input for contributing organizations listed by number of lecturers involved and hours of student contact. DFE staff supplied just over half (53%) of the class contact hours, with Eyre Peninsula Community College supplying the bulk (75%) of the DFE load. Roseworthy Agricultural College lecturers and Department of Agriculture staff supplied most of the remaining class contact hours (120 hours and 103 hours respectively).

4.2.3 SOME FEATURES OF THE COURSE

An additional feature of the four three-week periods of full time live-in study release was to encourage among students the development of social skills, particularly those concerned with interpersonal relationships and the exchange of information, ideas, and experiences. Thus the curriculum provided opportunity for both planned and unplanned learning.

Objectives were written for each part of the course. Where possible, each objective was related to the everyday tasks that trainees perform on the farm. This approach assisted lecturing staff in planning and presenting the content of each session and in identifying the projects to be carried out between 'block' releases. Course content was determined to some degree by the seasonal availability of 'teaching materials' and the facilities available at 'block' release teaching locations.

The course development committee agreed that the course should have a strong emphasis toward developing applied farming skills, rather than just an emphasis on theoretical skills. Each study release was therefore designed to provide a suitable balance of practical sessions, tutorials and lectures. The emphasis was on the 'how' and the 'why' of correct farm practices.

4.2.4 PROJECTS

Projects, field days and the other on-farm activities undertaken by trainees were selected to reinforce existing knowledge and complement course content covered during each release. These exercises were undertaken between each 'block' release, that is, during the on-farm portion of the training.

4.2.5 PRACTICAL FARM SKILLS

The practical skills that were to be acquired while working on the farm were listed in a log-book. The book listed common farm operations sub-divided

into task areas. A copy of the log-book was issued to each of the trainees to provide a guide as to the actual skills that needed to be developed. It also provided a permanent record of progress in each area. Additionally, the master farmer was able to use the book as a guide when instructing, supervising and examining the trainee in each of the required tasks.

On successful completion of a particular skill the master farmer was required to sign the appropriate section and make any comments he felt were necessary. Standards of performance were not stipulated; the only criterion for signing off a section was that the activity should be completed to the satisfaction of the master farmer. Also contained in the log-book were a number of skills that were to be assessed by the course coordinator.

The log-book provided a permanent record of skills that had been developed and work experience gained. This was seen as an important feature should a trainee seek employment with another farmer.

4.3 FIRST 'BLOCK' RELEASE

The first block release was held during March 5-24, 1978. Trainees stayed at the Lion's Hostel, 14 km north of Port Lincoln. Lectures were conducted in the hostel dining room. Workshop activities were held at Eyre Peninsula Community College. Caterers provided breakfast, and an evening meal.

A living away from home allowance to cover accommodation, meals and materials costs was funded by the Federal Government.

4.3.1 TYPES OF LECTURING INPUT

TABLE 16 TYPES OF LECTURING INPUT

ORGANIZATION SUPPLYING LECTURERS	NUMBER OF LECTURERS	CLASS CONTACT TIME IN HOURS
DEPARTMENT OF FURTHER EDUCATION	3	123
DEPARTMENT OF AGRICULTURE	6	46
OTHER GOVERNMENT DEPARTMENTS	2	18
PRIVATE ENTERPRISE FIRMS	5	14
FARMERS	2	6
TOTAL	18	238

(see Appendix 6 for more details).

18 lecturers were involved in the 238 hours class contact block release.

Most of these lecturers (13) came from the Department of Agriculture and private enterprise. Over half of the contact hours were supplied by DFE.

The input from the Department of Further Education and the Department of Agriculture came from both local and Adelaide based persons. Participating government organizations released staff without cost to DFE.

4.3.2 TEACHING PROGRAMME

The eighteen day programme operated mainly on one hour segments, except for 2½ hour sessions in the evenings. Details of the timetable are provided in *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 6a - 'Timetable for first block release'.

4.3.3 TEACHING OBJECTIVES

The programme was designed to begin with basic concepts and to build on them in later block releases. It was also planned to alternate class and workshop sessions so that there was variety of activity.

The topics covered were:

(a) animal studies -

- o animal structure
- o reproductive, excreting systems
- o basic animal behaviour
- o sheep and cattle

(b) plant studies -

- o soil composition, erosion, salting
- o plant structure
- o cereal choice and establishment
- o pasture management
- o pest, plant control, labels, safety

(c) technical studies -

- o workshop layout, safety, tools
- o arc and gas welding - equipment, safety, basic welds
- o electricity - terms, safety, supply systems
- o mechanics - 2 and 4 stroke petrol engines
- o construction - levelling, council regulations

(d) farm management

- o communication - oral and written
- o physical and financial records
- o balance sheet

(More details concerning the teaching objectives are provided in *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 6b - 'Teaching objectives for March, 1978 block release'.)

4.3.4 PRE AND POST-TEST

A test was prepared to measure the achievement levels of trainees. The questions in the test were related to the teaching objectives. The test is contained in Appendix 7a.

The 1½ hour test was given as a pre-test on the first evening of the block release. The immediate purpose of the pre-testing was to identify individual and collective levels of achievement.

The test was again given as a post-test shortly after the block release was completed. The immediate purpose of the post-testing was to measure individual and collective gains.

TABLE 17 ACHIEVEMENT TEST SCORES

% RANGE OF TEST SCORES	% OF TRAINEES	
	Pre - test	Post - test
30 - 49	18	7
50 - 69	54	12
70 - 89	25	70
> 90	3	11

Appendix 4 contains raw data for the pre and post tests.

In the pre-test 28% of trainees scored 70% or higher. The average was 61.5% for all trainees. In the post-test 81% of trainees scored 70% or higher. All trainees improved their scores by from 4% to 34% with the average gain being 16%.

4.3.5 TRAINEE REACTION QUESTIONNAIRE

A trainee reaction questionnaire was developed to obtain student feedback on:

(a) portions of the 'block' release liked and disliked;

(b) portions of the 'block' release that were found difficult;

(c) expectations regarding the course content;

(d) enjoyment of the 'block' release programme;

(e) variation in the evening programme;

(f) value of discussion with other students during non-class times;

(g) problems, if any, associated with boarding;

(h) preferred teaching method; and

(i) general comments.

The questionnaire is provided in Appendix 7b.

Close to 30% of trainees preferred the mechanics and welding topics.

54% of trainees found Farm Management particularly difficult.

The trainees were generally pleased that they attended the block release, and it was reasonably consistent with what they expected. They felt there was enough variation in the evening programme, that discussions with other trainees were useful and that there were few difficulties experienced by boarding together.

Practical sessions were most preferred by trainees with discussion in lectures their second preference. Assignments were least preferred.

Thirty responses were received for the general comments section. Nineteen of these comments related to additional free time over weekends and during evenings.

A detailed analysis of trainee responses is given in Appendix 7c.

4.3.6 COMMENTS BY MASTER FARMERS

Most master farmers felt that the topic farm management was an important topic, but that the subject content was too complex and theoretical. More applied material should be added.

Soil science was considered to be pitched at too high a level.

There was general agreement that there was good cooperation between lecturers.

4.3.7 COMMENTS BY LECTURERS

Lecturers generally found the trainees difficult to teach because of the wide ranges in farm experience and academic ability.

Non DFE lecturers expressed a desire to be more closely involved in the planning and development of the course.

Some trainees found it difficult to cope with Farm Management. It was felt that low numeracy ability was a significant cause.

4.3.8 ACTIONS TAKEN ON THE FIRST BLOCK RELEASE

In regard to the first 'block' release, the following major actions were taken:

(a) Types of lecturing input

The wide range of lecturing input would be maintained on the basis of needed expertise and availability of persons to service particular discipline areas.

(b) Teaching programme

The programme format would in general be maintained for future 'block' releases held at Pt. Lincoln.

(c) Teaching objectives

Farm Management would be reviewed in the light of observations made by master farmers, lecturers and trainees (in this latter case, note trainee questionnaire feedback which confirmed the view of the other two respondent groups).

(d) Pre and post-tests

Future pre-testing should be given at least two weeks before the first 'block' release so that the following arrangements can be made:

(i) individual trainee weaknesses can be diagnosed and suitable 'bridging' teaching can be undertaken in those areas that experiences gained in this pilot project have shown to require bridging course emphasis. Areas of particular need are those of literacy and numeracy.

(ii) should the trainee group as a whole score uniformly low, bridging course work can be presented to upgrade the group as a whole. Conversely, should the group excel in the pre-test then more advanced work can be presented from the outset of the first 'block' release.

The test was considered appropriate for future courses. It should be run as a pre-test only where new groups of trainees are being taught by experienced lecturers who have previously taught this particular topic. Lecturers taking the course for the first time would be advised to run both a pre and post-test in order to gauge the effectiveness of the teaching programme. The information arising from such action would be confidential to the lecturer(s) concerned.

Further remarks on pre and post-testing are deferred to the end of this Chapter and Chapter 5.

(e) Trainee reaction questionnaire

It was decided that future trainee reaction questionnaires would cover:

(i) subject matter, practical and demonstration work, and assignment and project work;

(ii) animal studies, plant studies, technical studies and farm management.

4.4 SECOND 'BLOCK' RELEASE

The second block release was held at Roseworthy Agricultural College from 21 August to 8 September, 1978. Trainees 'lived-in' at the college for the three week period. All teaching took place on the college premises.

Travel costs and accommodation were funded by the Federal Government.

4.4.1 TYPES OF LECTURING INPUT

17 lecturers were involved in the 181 hour class contact block release. Fourteen of the lecturers were from Roseworthy Agricultural College and the balance were supplied by DFE (see Appendix 6 for details).

4.4.2 TEACHING PROGRAMME

Most of the sessions were arranged in three hour segments, the major study areas being animal studies, plant studies, farm management and technical studies.

Details of the programme are provided in *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 7a - 'Timetable for second block release'.

4.4.3 TEACHING OBJECTIVES

The topics in this 'block' release were pertinent to the specialist resources provided by Roseworthy Agricultural College. For instance, sheep and cattle husbandry, and diesel engine studies are within this category.

The topics covered were:

(a) animal studies -

- o skeletal, respiratory, circulatory systems
- o slaughtering, butchery
- o cattle husbandry practices
- o sheep husbandry practices

(b) plant studies -

- o plant identification
- o alternative crops - selection, management
- o hay farming principles
- o fodder conservation
- o boom sprays - maintenance, operation, calibration

(c) technical studies -

- o workshop tools, taps, dies, bearings, V-belts
- o soldering
- o bearings
- o welding - vehicle, pipes, cast iron
- o electric motors - construction, maintenance
- o diesel engines - 2, 4 stroke

(d) farm management -

- o cash flow
- o assets and liability, profit and loss
- o gross margins
- o partial budgets

More details concerning the objectives are given in *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 7b - 'Teaching objectives for September, 1978 block release'.

4.4.4 PRE AND POST-TEST

A test was prepared to measure pre and post-course achievement levels. All test questions were devised from the teaching objectives. The test is contained in Appendix 8a - 'Second block release - Achievement Test'.

The pre-block release test was administered two weeks before the start of the second 'block' release so as to allow modifications to be made to the teaching programme. Twenty three students were tested.

The post-block release test contained the same questions as the pre-test and was completed on the last day of the block release by 26 trainees.

TABLE 18 ACHIEVEMENT TEST SCORES

% RANGE OF TEST SCORES	% OF TRAINEES	
	Pre - test	Post - test
< 29	4	-
30 - 49	22	8
50 - 69	57	15
70 - 89	17	73
> 90	-	4

In the pre-test, 17% of trainees scored 70% or higher. The average was 57.8% for all trainees. Appendix 4 contains raw data for both pre and post-tests.

In the post-test, 77% of trainees scored 70% or higher. All except one trainee showed a gain in achievement scores, with the average gain being close to 15%.

4.4.5 TRAINEE REACTION QUESTIONNAIRE

A trainee reaction questionnaire was devised to obtain feedback for each major topic area on:

(a) subject matter;

(b) practical and demonstration work;

(c) assignment and project work;

(d) general reaction.

The questionnaire was based on the first block release trainee questionnaire, but more questions were asked.

The questionnaire is provided in Appendix 8b while a detailed analysis of trainee reactions is given in Appendix 8c. A summary of this analysis is given below in the form of the average trainee response to particular questions. (Table 19).

For all topic areas combined, trainees on average found:

(a) the subject matter relatively easy to understand, the quantity of material 'about right' and the topics useful;

(b) the practical/demonstrations were relevant, satisfactorily organized and worthwhile attending. More practical sessions were desired;

(c) the assignments/projects were relevant, satisfactory in length of time and satisfactory in quantity. Feedback from lecturers was less than moderate to sufficient in quality.

4.4.6 ROSEWORTHY AGRICULTURAL COLLEGE ASSESSMENT

The College also carried out an assessment of the second 'block' release. A report was prepared and a copy is contained in Appendix 8d. Data were collected from 26 trainees and 12 lecturers.

Interpretation of data from the trainee questionnaire described in 4.4.5 above was consistent with the findings stated below. Farm Management material was noted as difficult for 11 trainees. It was pointed out that the diverse ability in numeracy made the presentation of the topic of Farm Management a demanding task.

Students were asked to list three valuable aspects of their stay (72 responses were obtained) and three criticisms (58 responses). Items receiving highest praise were Plant Studies, meals and accommodation, field practical sessions, and College staff. Items receiving criticism were transport and mobility from the College, Animal Studies and Farm Management. Taking both the trainee questionnaire findings and the above into account, it can be stated that the overall response was uniformly satisfactory; two or three criticisms were raised, but these were of a relatively minor nature.

Staff felt that the block release was a worthwhile experience for trainees and lecturers. Trainees were reported as being motivated. It was agreed that such sessions could be repeated given the resources. Reservations

TABLE 19

COMMENTS ON MAJOR TOPIC AREAS FOR SECOND BLOCK RELEASE

QUESTIONS	FARM MANAGEMENT	TECHNICAL STUDIES	PLANT STUDIES	ANIMAL STUDIES
SUBJECT MATTER				
1. EASE OF UNDERSTANDING	moderate	relatively easy	relatively easy	relatively easy
2. QUANTITY OF MATERIAL	about right	satisfactory	about right	about right
3. USE	useful	very useful	very useful	useful
PRACTICALS / DEMONSTRATIONS				
4. RELEVANCE	relevant	relevant	relevant	relevant
5. DESIRED NUMBER OF PRACTICE SESSIONS	some more	some more	some more	some more
6. HOW WELL ORGANIZED	satisfactory	satisfactory	satisfactory	moderate
7. TIME HELD AFTER LECTURE	some time after	some time after	some time after	some time after
8. ATTENDANCE WORTHWHILE	worthwhile	worthwhile	worthwhile	worthwhile
ASSIGNMENTS / PROJECTS				
9. RELEVANCE TO LECTURES	relevant	relevant	relevant	relevant
10. NUMBER OF ASSIGNMENTS	about right	about right	about right	about right
11. LENGTH OF TIME	about right	about right	about right	about right
12. FEEDBACK FROM LECTURERS	moderate	sufficient	moderate	less than moderate
GENERAL COMMENTS	GOOD TOPIC	GOOD TOPIC	-	-

TABLE 19

were held concerning the diversity of the group and the ability of some to cope with the work presented.

Nevertheless, staff would have appreciated more knowledge concerning:

- o nature of the course;
- o entry level of students;
- o range and depth of topics covered by trainees during the first block release.

4.4.7 COMMENTS BY MASTER FARMERS

Master farmers considered that the second 'block' release was very valuable. It was generally felt that the Roseworthy Agricultural College experience added prestige to the course. It was suggested that the sheep husbandry topic was too elementary and the topic of butchery was too comprehensive.

4.4.8 ACTIONS TAKEN ON SECOND BLOCK RELEASE

Specific action taken as a result of the information collected is related below.

(a) travel, accommodation and meal arrangements would be maintained;

(b) range of lecturers would be used;

(c) teaching programme would be maintained;

(d) pre and post-test would be retained. Pre-testing would occur two weeks before the commencement of the block release;

(e) the trainee reaction questionnaire would be revised to resemble more closely the fourth block release questionnaire;

(f) information regarding nature of course, entry level of students, and range and depth topics already covered by trainees would be passed on to Roseworthy Agricultural College well before the block release commenced; and

(g) the topic sheep husbandry would be upgraded.

4.5 THIRD 'BLOCK' RELEASE

The third 'block' release was held at the Lion's Hostel, Port Lincoln during 11-30 March, 1979. Arrangements for travel, meals, accommodation and teaching facilities were the same as for the first 'block' release, except that the caterers supplied breakfast only. Lunch and evening meals

were purchased by trainees and they were recompensed at the end of the 'block' release.

4.5.1 TYPES OF LECTURING INPUT

20 lecturers were involved in presenting the sessions, lasting a total of 183 hours.

8 lecturers were provided by the Department of Agriculture and 5 by DFE.

Over half the lecturing staff were provided from local Department of Agriculture, DFE and other government and free enterprise sources. (see Appendix 6 for more detailed information).

4.5.2 TEACHING PROGRAMME

Most of the sessions, including the evening ones were arranged in one or two hour segments, with the major topic areas being animal studies, plant studies, technical studies and farm management.

Details of the programme are provided in *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 8b - 'Timetable for the third block release'.

4.5.3 TEACHING OBJECTIVES

The range of topics included fertilizers, animal feeding, disease, and agricultural electricity, all of which required skills acquired through studying topics covered in earlier 'block' releases.

The topics covered were:

(a) farm management -

- credit: types, resources
- insurance: types, resources
- estate planning: types, resources
- marketing: price instability causes

(b) technical studies -

- o construction: concrete, brick and timber work
- o mechanics: automotive and electrical systems
- o welding: metal identification, oxy cutting and heating treatment

(c) plant studies -

- o fertilizers, soil testing
- o seeds dispersal, germination
- o grain: harvesting, storage and marketing
- o pastoral establishment and renovation
- o weed control: chemical and physical

(d) animal studies -

- o digestive system, feeds, feeding
- o animal and farm hygiene
- o meat: sheep production
- o sheep dogs, handling
- o beef, cattle disorders

More details concerning the objectives are given in *Curriculum Materials in the pilot Certificate in Farm Practice Course*, item 8b - 'Teaching objectives for the March, 1979 block release'.

4.5.4 PRE AND POST-TESTS

Four tests were prepared to measure pre and post-block release achievement levels for each of the major topic areas. The four tests are contained in Appendix 9a - 'Third block release - Achievement Tests'.

Twenty four trainees were pre-tested and post-tested.

TABLE 20 **ACHIEVEMENT TEST SCORES**

% RANGE OF TEST SCORES	% OF TRAINEES	
	Pre - test	Post - test
< 29	8	0
30 - 49	54	8
50 - 69	33	58
> 70	-	34

No trainees scored 70% or higher in the pre-test; 34% of trainees scored 70% or higher in the post-test.

All trainee scores measured from pre-test to post-test stages with the average gain being 21%.

4.5.5 TRAINEE REACTION QUESTIONNAIRE

A trainee questionnaire (Appendix 9b) was devised to obtain feedback for each major topic area on:

(a) subject matter (questions identical to that for Appendix 8b);

(b) use of teaching aids (5 questions asked);

(c) practicals/demonstrations (same questions as those asked for previous block release - see Appendix 8b);

(d) assignments/projects (questions identical to that for Appendix 8b); and

(e) other questions (three questions on slides and reference books).

Twenty four trainees responded.

Collated results are contained in Appendix 9c. Table 21 summarizes the reaction in the form of average trainee reaction.

For all topic areas combined, trainees on average found:

(a) the subject matter was relatively easy to understand, the quantity of material satisfactory and the topics useful;

(b) in regard to teaching aids, writing on the chalkboard was relatively easy to read, writing on overhead projector transparencies was relatively easy to read and sufficient time was given to read them, use of aids was satisfactory, and the handout sheets were useful;

(c) practicals/demonstrations were relevant, satisfactorily organized, and attendance was worthwhile. More practical sessions were desired;

(d) assignments/projects were relevant and there was a satisfactory number of assignments. Feedback from lecturers was moderate;

(e) slides were considered relevant and sufficient time was allowed to view them. The reference books were moderately useful.

TABLE 21

COMMENTS ON MAJOR TOPIC AREAS FOR THIRD BLOCK RELEASE

QUESTIONS	FARM MANAGEMENT	TECHNICAL STUDIES	PLANT STUDIES	ANIMAL SCIENCE
SUBJECT MATTER				
1. EASE OF UNDERSTANDING	moderate	relatively easy	relatively easy	relatively easy
2. QUANTITY OF MATERIAL	about right	about right	about right	about right
3. USE	useful	very useful	useful	very useful
USE OF TECHNICAL AIDS				
4. CHALKBOARD : EASE OF READING	relatively easy	relatively easy	relatively easy	relatively easy
5. OHP : EASE OF READING	relatively easy	relatively easy	relatively easy	relatively easy
6. OHP : SUFFICIENT TIME TO READ	sufficient	sufficient	sufficient	sufficient
7. USE OF AIDS	moderate	good	good	good
8. USEFULNESS OF HANDOUT SHEETS	useful	useful	useful	useful
PRACTICALS / DEMONSTRATIONS				
9. RELEVANCE	moderate relevance	relevant	relevant	relevant
10. DESIRED NUMBER OF PRACTICE SESSIONS	more	more	more	slightly more
11. HOW WELL ORGANIZED	moderate	satisfactory	satisfactory	satisfactory
12. TIME HELD AFTER LECTURE	some time after	some time after	some time after	some time after
13. ATTENDANCE WORTHWHILE	worthwhile	worthwhile	worthwhile	worthwhile
ASSIGNMENTS / PROJECTS				
14. RELEVANCE	relevant	relevant	relevant	relevant
15. NUMBER OF ASSIGNMENTS	about right	about right	about right	about right
16. FEEDBACK FROM LECTURERS	moderate	moderate	moderate	moderate
OTHER QUESTIONS				
17. SLIDES : RELEVANCE	-	relevant	relevant	relevant
18. SLIDES : SUFFICIENT TIME TO VIEW	-	-	sufficient	sufficient
19. REFERENCE BOOKS : USEFUL	-	moderate	moderate	moderate
GENERAL COMMENT	-	TOPICS ARE VERY GOOD	INTERESTING	INTERESTING

Farm management rated lower than the three other topic areas on ease of understanding of subject matter, use of aids and relevance of practicals/ demonstrations.

Feedback from lecturers on assignments/projects was moderate.

Reference books were moderately useful for three of the four topic areas.

Response from master farmers indicated that many were very impressed with the construction section in Technical Studies. It was considered to have high practical value.

Lecturers from Whyalla College of Further Education and from the Open College considered that trainees were highly motivated compared with apprentices of a similar age.

4.5.6 COMMENTS ON THIRD BLOCK RELEASE

These were:

(a) travel, accommodation and meals services should be maintained at the pilot course level for future courses;

(b) the present level of lecturing support should be maintained for future courses;

(c) the present teaching objectives should be retained;

(d) the trainee achievement test should be retained for future use;

(e) the trainee reaction questionnaire should be revised to be similar to that used for the fourth block release; and

(f) a larger practical component should be included for future courses.

4.6 FOURTH 'BLOCK' RELEASE

The fourth 'block' release was held during the period 9-28 September, 1979. Arrangements for travel, accommodation, meals and backing were the same as those for the third block release.

4.6.1 TYPES OF LECTURING INPUT

22 lecturers were involved in presenting sessions lasting a total of 166 class hours.

15 lecturers were from the private enterprise area (firms or farms) and these provided on average 2 class hours per person. The two DFE lecturers provided close to 70% of the class contact time.

Appendix 6 gives more detailed information.

4.6.2 TEACHING PROGRAMME

Most day sessions ran for 1 hour. Evening sessions were each 2½ hours.

Details of the programme are provided in *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 9a - 'Timetable for the fourth block release'.

4.6.3 TEACHING OBJECTIVES

This section of the course is aimed to tie together the concepts covered in other 'block' releases by using the 'whole farm' approach. Farm visits were used to provide practical illustrations of the concepts that had been presented.

The topics covered were:

(a) farm management -

- o labour management
- o farm layout
- o marketing: wool, meat and wheat
- o farm visits: innovations and management

(b) technical studies

- o construction: fencing, water reticulation
- o mechanics: tyres, servicing and maintenance
- o energy conservation

(c) plant studies

- o climatology: effective rainfall, growing season, drought probability
- o plant diseases, relevant to Eyre Peninsula
- o insect pests, relevant to Eyre Peninsula
- o rabbit: biology and control

(d) animal studies

- o sheep disorders
- o animal breeding: hereditability, selection

Details of the teaching objectives are given in *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 9b - 'Teaching objectives for the September, 1979 block release'.

4.6.4 PRE AND POST-TESTS

Four tests were prepared to measure pre and post test block release achievement levels for each of the four major topic areas. The four tests are contained in Appendix 10a "Fourth Block Release - Achievement Tests".

Twenty four trainees were pre-tested and post-tested.

Raw scores are given in Appendix 4.

TABLE 22 ACHIEVEMENT TEST SCORES

% RANGE OF TEST SCORES	% OF TRAINEES	
	Pre - test	Post - test
< 29	8	0
30 - 49	54	0
50 - 69	38	4
70 - 89	0	67
> 90	0	29

In the pre-test, no trainee scored 70% or higher; 96% of trainees scored 70% or higher in the post-test.

All trainees registered an improvement in test scores from the pre to post block release stage. The average increase was 39%, with individual improvement ranging from 30-48%.

4.6.5 TRAINEE REACTION QUESTIONNAIRE

Questions asked for the 'third' block release trainee questionnaire were repeated for this 'block' release, but in a different order. The questionnaire as used is given in Appendix 10b.

Twenty three trainees responded.

Collated results are contained in Appendix 10c.

Table 23 summarizes the reaction in the form of average trainee response.

For all topic areas combined, trainees on average found that:

(a) the subject matter was relatively easy to understand, the quantity of material was satisfactory and the topics were useful;

(b) in regard to teaching aids, writing on the chalkboard was relatively easy to read, writing on overhead projector transparencies was relatively easy to read and sufficient time was given to read them, slides were relevant and sufficient time was allowed to view them, use of aids was satisfactory, reference books were useful, and hand out sheets were useful.

(c) practical/demonstrations were relevant, satisfactorily organized, and attendance was worthwhile. More practical lessons were desired; and

(d) assignments/projects were relevant, and there was a satisfactory number of assignments. Feedback from lecturers was moderate.

Response from master farmers indicated that farm visits were valuable in that application of principles could be observed at first hand.

Department of Agriculture lecturers, who had participated in earlier 'block' releases, remarked on the more mature and enthusiastic approach shown by the trainees in the final 'block' release.

4.6.6 COMMENTS ON FURTHER BLOCK RELEASE

(a) travel, accommodation and meal arrangements should be retained for future courses;

(b) the range of lecturing expertise should be retained;

(c) the teaching programme should be retained;

(d) the teaching objectives should be retained;

(e) the trainee achievement test should be retained;

(f) the trainee reaction questionnaire should be retained with slight modification (see general comment at end of the section). The method of analysis should be completely revised (see end of this section); and

(g) a larger practical component should be included for future courses.

TABLE 23

COMMENTS ON MAJOR TOPIC AREAS FOR FOURTH BLOCK RELEASE

QUESTIONS	FARM MANAGEMENT	TECHNICAL STUDIES	PLANT STUDIES	ANIMAL SCIENCE
SUBJECT MATTER				
1. EASE OF UNDERSTANDING	relatively easy	relatively easy	relatively easy	relatively easy
2. QUANTITY OF MATERIAL	about right	about right	about right	about right
3. USE	useful	useful	useful	useful
USE OF TEACHING AIDS				
4. CHALKBOARD : EASE OF READING	easy	relatively easy	relatively easy	relatively easy
5. OHP : EASE OF READING	relatively easy	relatively easy	relatively easy	relatively easy
6. OHP : SUFFICIENT TIME TO READ	relatively sufficient	relatively sufficient	relatively sufficient	relatively sufficient
7. SLIDES : RELEVANCE	relevant	relevant	relevant	relevant
8. SLIDES : SUFFICIENT TIME TO VIEW	sufficient	sufficient	sufficient	sufficient
9. USE OF AIDS	good	good	good	good
10. REFERENCE BOOKS USEFUL	moderate	moderate	moderate	moderate
11. USEFULNESS OF HANDOUT SHEETS	useful	useful	useful	useful
PRACTICALS / DEMONSTRATIONS				
12. RELEVANCE	relevant	relevant	relevant	relevant
13. DESIRED NUMBER OF PRACTICE SESSIONS	more	more	more	more
14. HOW WELL ORGANIZED	satisfactory	satisfactory	satisfactory	satisfactory
15. TIME HELD AFTER LECTURE	some time after	some time after	some time after	some time after
16. ATTENDANCE WORTHWHILE	worthwhile	worthwhile	worthwhile	worthwhile
ASSIGNMENTS / PROJECTS				
17. RELEVANCE	relevant	relevant	relevant	relevant
18. NUMBER OF ASSIGNMENTS	about right	about right	about right	about right
19. FEEDBACK FROM LECTURES	moderate	moderate	moderate	moderate
GENERAL COMMENT	TOPICS VERY GOOD	INTERESTING	VISITS VERY USEFUL	INTERESTING

4·7 PROJECTS AND ASSIGNMENTS

Ten projects and assignments were completed by trainees during the 18 month period. They were designed to relate topics covered during 'block' releases to the farm situation.

The relationships between 'block' release topics and project/assignments and the timing of the projects/assignments are shown in schema below:

Particular Block Release Time Scale	Relevant Block Release Topics	Project/Assignment Topics	A - Field Day Project B - Assignment
March 1978 - First block release	Basic farm records	Farm plan, records	Whole farm case study (B)
	Soil science		
September 1978 - Second block release	Alternative crops	Grain legumes	Mt. Hope Ag. Bureau Conf. (A)
		Tractor selection	Cleve Field Day (A)
	Farm management	Gross margins	Gross margins (B)
	Sheep husbandry	Shearing shed, sheep yard layouts	Sheep yard and shearing shed design (B)
	Tractor operation	Harvester selection	Harvester field day (A)
March 1979 - Third block release	Crop establishment	Post-test assignment	Post-block release (B)
	Weed control	Direct drilling	Tumby Bay Ag. Bureau Conf. (A)
September 1979 - Fourth block release	Crop pests	Barley grub project	Barley grub (B)
	Farm layout	Partial budgets	Partial budgets project (B)
	Pasture establishment		

The objectives of each of the projects and assignments are contained in *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 10a - 'Project/assignment objectives'. The teaching materials relating to each of the projects and assignments is contained in item 10b - 'Project/assignment teaching materials'. The results for each of the assignments and projects for each trainee is contained in item 10c - 'Project/assignment student assessments'. The overall score for all projects and assignments is also reported in the trainee assessment scores sheet in Appendix 4.

Master farmer responses were as follows:

- o the whole farm case study was very worthwhile;
- o the tractor selection project held during the Cleve Field Days should have included consideration of cost factors;
- o projects enable continuing contact with the Course Coordinator;
- o more projects are required and these should be matched with Agricultural Bureau field days;
- o there should be more projects relating to the operation and maintenance of machinery;
- o trainees who had previously avoided homework during their schooling years demonstrated a desire to do well in the projects and assignments.

It was agreed that field days, demonstrations and farm case studies be retained as valuable and necessary part of the total programme.

4·8 PRACTICAL SKILLS INSTRUCTION AND LOG BOOK

Refer to the document *Curriculum Materials for the pilot Certificate in Farm Practice Course* for a copy of the log-book used in the pilot course.

Comments from master farmers were along the following lines:

- o some master farmers were initially confused about their specific responsibility regarding the log-book. They felt that they were inadequately prepared for the role:
- o it was considered that it was time consuming to properly supervise the trainee. Filling out the log-book was at times tedious;
- o it was generally felt that the log-book served a useful purpose in helping them programme and record the practical skills training.

The course coordinator reported that certain instructions were vague. This caused some confusion especially in the interpretation of skills competence.

Silage making was found to be inappropriate for the Eyre Peninsula region.

The plastic binding system for binding the log-book proved impractical in that some books fell apart.

It was decided to revise the log-book giving particular attention to:

- o specifying the standard required of trainees;
- o stating the conditions under which trainees are expected to perform each task;
- o including a schedule for completion of set tasks.

The revised log-book is provided in the document *Curriculum Materials for the pilot Certificate in Farm Practice Course*, item 11 - 'Practical skills instruction and log-book, 1980-81'.

4.9 GENERAL COMMENTS ON THE TEACHING PROGRAMME

4.9.1 FINANCIAL MANAGEMENT AND BUDGETING

It was found that trainees experienced difficulties with financial management and budgeting topics. The following recommendation takes into account the importance of allowing for abilities and needs of course participants.

RECOMMENDATION 8

The financial farm management and budgeting topics should be designed in line with the needs and abilities of course participants.

4.9.2 ORGANISATION OF OFF-PROPERTY TRAINING

It was agreed that 'block' release sandwiched between on-farm property training was the best arrangement. Even so, college teaching and farm practice training could both be in-college and on-farm. The table below shows the possible variations of college teaching and farm training in relation to location.

TABLE 24 TYPE OF TEACHING IN RELATION TO LOCATION

TYPE OF TEACHING	LOCATION		
	in - college	on - farm	off - farm
COLLEGE TEACHING	Yes (A)	Yes (B)	Yes (C)
FARM PRACTICE TRAINING	No	Yes (D)	Yes (E)

Examples of each of the above are:

type A (block release at Pt. Lincoln)

type B (course coordinator tuition for on-farm projects)

type C (block release at Roseworthy Agricultural College)

type D (master farmer tuition)

type E (Agricultural Bureau Conferences which would also have a college teaching component)

College teaching and farm practice training activities would complement each other.

RECOMMENDATION 9

The balance of on and off-property training activities should be retained.

RECOMMENDATION 10

If practicable at least one session of off-property training activity should be held at Roseworthy Agricultural College or a comparable agricultural education institution.

4.9.3 NATURE OF LECTURING STAFF

Trainees reported favourably on the range, diversity and expertise of lecturers for all off-property training sessions.

RECOMMENDATION 11

A range and diversity of lecturers should be secured to match locally identified needs.

4.9.4 PRE- AND POST-TESTING

Whenever a new major topic area is developed or an existing one is heavily revised, pre and post-testing should operate as a matter of course. An indication of trainee difficulties would be obtained at the pre-test stage and a measure of overall student gain would be produced once both tests have been administered. The data would be used to isolate and rectify problem areas. As such the tests would be used for course evaluation purposes.

Inexperienced lecturers could run the test as a pre and post-test to assess overall improvement during the 'block' release. The data would be confidential to the lecturer(s) concerned as the information would be used for lecturer diagnostic purposes rather than solely for measuring student gains.

The pre-test should always be given at least two weeks before the block release commences.

RECOMMENDATION 12

Where possible new major topic areas and heavily revised ones should be pre and post-tested for trainee achievement.

RECOMMENDATION 13

For new or revised topic areas trainees should generally be pre-tested and the data used for course design purposes (as well as a guide for measuring achievement). The testing should occur at least two weeks before the particular block release commences.

4.9.5 MODIFICATION OF TRAINEE QUESTIONNAIRE

The trainee questionnaire could be modified in the following way:

- the ordering of questions should be the same as that used for the questionnaire devised for the fourth session of off-property training;
- consideration be given to adding questions that deal with lecturer performance. These questions would be similar to those developed for early draft questionnaires. It would be important for the collection

and interpretation of this particular data to be within the control of the lecturer concerned.

- consideration be given to altering the scaling of all questions so that where possible opposites such as "too long" and "too short" be used throughout.

CHAPTER 5

METHODS OF TRAINEE ASSESSMENT

A comprehensive schedule of trainee assessment was adopted for both the 'block' release, on-property and other off-property components of the programme. As outlined previously pre and post tests were used for course evaluation and lecturer self diagnostic purposes, as well as for measuring trainee achievement. The same tests were considered useful for student assessment purposes, especially for situations beyond the pilot testing phase.

5·1 POST BLOCK RELEASE SCORES

The major use for the post block release tests was to obtain measures of trainee achievement. The achievement scores were amalgamated to obtain an overall total sum for each trainee.

Pre and post-tests were completed by trainees for each 'block'. The questions were essentially the same for both the pre and post-test and were formulated according to the content of the particular 'block'. Results of the pre-tests gave a measure of trainee knowledge before that section of the programme started and allowed the training programme to be adjusted accordingly. The difference between the pre and post-tests was taken as a measure of gain in trainee knowledge as a result of the training provided. Poorly understood concepts were detected in the post-test results enabling remedial action to be undertaken in the form of the post-block release project.

Memory of the questions from the pre-test to the post-test stage was not considered a significant problem for the pilot course because answers were written on the questionnaire itself and all tests were collected immediately upon completion.

RECOMMENDATION 14

The trainee achievement test should be used for two purposes

(1) as a pre-test to identify those requiring bridging course work

(2) as a post-test to identify those requiring further tuition in order to attain mastery.

Individual trainee scores are reported in Appendix 4 for each of the four post-tests. Forty per cent of the overall marks were allocated to this component of the course.

5·2 FARM SKILLS ASSESSMENTS

On-farm training activities, as covered in the log-book, were assessed by the master farmer. The course supervisor oversighted the training of tasks as prescribed in the log-book and the assessment was given by the master farmer. The course supervisor also assessed trainees on particular on-farm exercises, such as tractor driving and maintenance.

Each of the following five areas was allocated ten per cent of the overall assessment mark:

- tractors;
- harvesters;
- sheep;
- slaughtering;
- welding

Individual trainee marks are reported in Appendix 4. Collated results, findings and other comments are reported in Appendix 11.

5·3 PROJECTS AND ASSIGNMENTS

Project work, incorporating farm case studies, field day exercises and other group activities were used as an indication of how well trainees could apply what they had learnt in the classroom. Projects and exercises associated with group activities were used as a measure of how well the trainees coped with obtaining and interpreting information of a practical nature.

Assignments were also completed during the eighteen month period. A description of the projects and assignments is given in the previous section. Individual trainee marks for the ten projects and assignments combined are shown in Appendix 4.

5·4 OVERALL ASSESSMENT

The course was developed on the understanding that emphasis would be placed primarily on the development of applied skills; a trainee who performed

poorly during the theoretical aspects of the course, but who showed ability in the more applied aspects would not necessarily be failed. To achieve the balance between theory and practice an overall performance mark was calculated according to the following formula:

4	Post Block Release Scores	40%
10	Projects and Assignments	10%
5	Farm Skills Assessments	50%
	TOTAL	100%

Overall trainee achievement is summarized in the table below:

TABLE 25 OVERALL TRAINEE ACHIEVEMENT

% RANGE OVERALL PERFORMANCE	% OF TRAINEES
50 - 59	4
60 - 69	9
70 - 79	61
80 - 89	26

87% of trainees scored 70% or better. All trainees scored more than 50%.

This suggests that an overall achievement level of 50% is appropriate for the award of a certificate. Should a trainee score below that level then suitable 'booster' tuition would enable a student to improve sufficiently to reach the minimum standard required.

All trainees received a Certificate in Farm Practice; two were given distinction grades and five were given a credit rating.

5.5 ASSOCIATION BETWEEN SELECTED VARIABLES

It was decided to correlate certain pairs of farm practice course parameters. The following variables were selected on the basis that associations, if any, would be valuable for teaching purposes. Abbreviations are included in brackets after each variable.

- age;
- farm experience (exp.);
- schooling (school.);
- literacy (lit.);
- numeracy (num.);

- o block release achievement (block rel. tests);
- o farm skills achievement (skills);
- o project/assignment achievement (proj.);
- o overall achievement (achiev.).

Table 26 lists the variables in a matrix form. Half of the matrix is hatched so that each pairing is registered once and not twice. Cells containing written comment show that there is a marginal, moderately high or high, positive or negative relationship. The remaining cells are vacant while registering no relationship between the variables concerned. Data used to analyse relationships was taken from raw data contained in Appendix 4.

TABLE 26 ASSOCIATION BETWEEN FARM PRACTICE VARIABLES

VARIABLES	VARIABLES								
	Age	Experience	Schooling	Literacy	Numeracy	Block Release Tests	Skills	Project	Achievement
Age		high (·85)***							
Experience			mod. high (-·64)**						
Schooling									
Literacy						marg. (·43)*		marg. (·43)	
Numeracy							marg. (·43)		marg (·46)
Block Release Tests									mod. high (·68)
Skills									high (·92)
Project									
Achievement									

*** high means high degree of association (0.8 or more for Pearson's Correlation Coefficient at 5% significance).

** mod. high means moderately high degree of association (0.6-0.8 for Pearson's Correlation).

* marg. means marginal degree of association (0.4-0.6 for Pearson's Correlation).

5·6 AGE , SCHOOLING AND FARM EXPERIENCE

Age, farming experience and schooling were not associated with any of the variables except in the following two cases:

- age and experience were strongly associated (0.85). One would expect a high relationship as older trainees would have been away from school longer and therefore had the opportunity of gaining more farm experience;
- schooling and farming experience were inversely related (- 0.64). Again, one would expect such a relationship as more years of schooling means less years of farm experience.

Age, schooling and farm experience were not associated with literacy and numeracy; neither are they related to practical and theoretical tests. This means that age, schooling and farm experience data were not relevant as predictors of achievement. A large number of years of schooling did not necessarily guarantee success in theory tests. A large number of years of farm experience did not necessarily guarantee success in practical tests. Nevertheless, one must take into account that all trainees had previous non-continuous or continuous farm experience; any trainee entering a course without previous farm experience may be 'at risk'.

5·7 LITERACY AND NUMERACY

Literacy was marginally associated with block release and project/assignment achievement tests. This suggests that there was a minor literacy component in each of these tests. Any trainee having a low literacy score should receive remedial literacy tuition, as an 'at-risk' student. The progress of such persons should be closely followed in especially block release and project/assignment testing.

RECOMMENDATION 15

Trainees with low literacy scores should be given remedial teaching on the basis that they could be at-risk in regard to block release and project/assignment achievement.

Numeracy was marginally related to skills scores and overall achievement. Any trainee scoring low marks in the numeracy test should be considered at-risk in regard to skills assessments and overall performance.

RECOMMENDATION 16

Trainees with low numeracy scores should be given remedial teaching on the basis that they could be at-risk in regard to skills and overall achievement.

5·8 STUDENT ASSESSMENT

The relationship between skills and overall achievement was high (0.92) while that between block release tests and overall achievement was moderately high (0.68). Two significant points can be made:

- o overall achievement correlated highly with skills achievement. Based on the score distribution used in the pilot course, skills ability can act as an early predictor of ultimate success;
- o a fundamental aim of the course was to stress practical skills training in relation to theory training. The strong association between skills scores and overall achievement scores showed that the original intention had been achieved.

5·9 GENERAL COMMENT

Evaluation standards applied during particularly the analysis and reporting phases are reported in Appendix 13.

CHAPTER 6

GENERAL COMMENTS BY MASTER FARMERS

Fourteen master farmers were interviewed separately by a research officer. Comments received were collated and analysed by the interviewer. Some of these findings were reported in earlier sections of this document because it was appropriate to do so at the time.

General comments are reported below under six major headings.

6·1 TRAINEES' ATTITUDE AND INTEREST

(a) The trainees appeared to be keen and interested.

(b) The course gave trainees a chance to maintain equality with other trainees of similar age; this generated a greater feeling of security. Trainees consequently paid more attention to their work and showed greater interest.

6·2 SUPERVISION BY THE COURSE COORDINATOR

(a) Better results were achieved once the College took a definite stand on trainees' work.

(b) Greater supervision is required between blocks and on half day exercises.

(c) There was no problem with the Course Coordinator assessing and checking on trainee's progress.

(d) There was adequate supervision of trainees - they have a great respect for the Course Coordinator as a conscientious and able person.

6·3 DEGREE OF LIAISON AND COOPERATION

(a) There was no significant problems in matters of liaison and cooperation. The course ran smoothly and effectively.

(b) More interaction is required between the course supervisor and master farmers about the content and in particular the emphasis that should be placed on various topics.

(c) The timing and arrangement of topics were as good as could be.

(d) A considerable amount of work went into the planning of the training programme. The planning committee met frequently and sorted most things out very well.

6·4 MASTER FARMER TRAINING COURSE

(a) The two day training course for master farmers should be divided into:

first day - course content;

second day - instruction techniques.

(b) Perhaps master farmers need to be brought together every six months to be informed of the next set of aims and of the future course content.

(c) The training course was too 'juvenile' - especially on the first day. Farmers did not know what was expected of them.

(d) The course made farmers think more about their responsibilities and the method of instruction. They should not assume that the trainee is familiar with the concepts to be presented.

(e) More exercises are needed in the early part of the second day.

(f) The course was useful in helping farmers appreciate the importance of a supportive attitude when teaching a trainee.

6·5 FUNDING

Financial assistance is available through the NEAT scheme. However, in practice very few people qualify for this assistance.

Taxation concessions are available for farmers to update their knowledge, but there is no concession where the course leads to a recognised qualification.

In Victoria CRAFT is available to employers who take on farm apprentices. The Certificate in Farm Practice does not attract this assistance. Even though the course is undertaken by trainee farmers under the guidance of a master farmer, as no formal apprenticeship agreement exists, the CRAFT subsidy does not apply.

The contracts of training which are provided for in the Industry and Training Act may be applied to farmer training. However, it is not expected that these contracts will be eligible for the CRAFT subsidy.

In the present situation farmers are loath to allow their employees to attend courses. Someone else needs to be employed while a trainee is away on block release or other course sessions.

6·6 OVERALL EFFECTIVENESS OF COURSE

Below are some selected comments by master farmers on the general effectiveness of the course.

(a) Trainees now have more confidence, a broader knowledge of farming in general and are now better able to move into the allied fields of shearing and share farming.

(b) A very valuable course (emphatic comment by one group).

(c) The master farmer is learning as much as the trainee. One helps the other in developing improved farming methods. The course prompted both the trainee and the farmer to become more involved in examining existing farming practices and in relating theory and practice.

(d) One farmer wished he had such an opportunity when he was young.

(e) This course has presented trainees with new ideas and methods of farming which they can now try out on their own property according to local conditions.

Field days brought many trainees together and into contact with new ideas and farming techniques.

(f) Trainees now have 28 contacts (fellow trainees) with whom to discuss farming problems and to assist them in their career. All trainees speak well of each other and of the course supervisor.

6·7 AGREEMENT WITH OTHER GROUPS

In general, the feedback from master farmers coincided with that of other groups. For instance, reaction from other sources indicated that trainees were motivated and that the course was effective.

CHAPTER 7

RECOMMENDATIONS PRODUCED BY ADVISORY COMMITTEE AND ACTION SINCE TAKEN

Members of the evaluation committee formed to assist with the evaluation project were in a position to consider a range of issues wider than those for the project team. The views of the evaluation committee are reported below along with the specific actions recommended. Many of these actions were implemented during 1980. The reporting of these further developments means that this document not only contains a record of the evaluation project but describes the follow-up action taken. These latter statements testify to the usefulness of the evaluation.

7·1 SUCCESS OF THE SCHEME

It is considered that the Farm Practice Training Scheme has been highly successful in meeting the needs of the farming community. It has been, in the eyes of the master farmers and trainees, an extremely useful course rated very highly by these two groups.

RECOMMENDATION 17.

That, because evaluation has shown that the Certificate in Farm Practice is achieving its aims, and that it is effective in improving and enhancing the skills of trainees in farm practices, this scheme be made available to all sectors of the farming community according to need.

Courses were offered in the Riverland, South East,Eyre Peninsula, Southern Mallee and Mid-North regions of South Australia during 1980. Additional courses are proposed for 1982.

RECOMMENDATION 18.

That the Department of Further Education make adequate resources available so that similar training schemes may be offered to all sectors of the farming community.

Resources have been made available to service the above courses. Some assistance has come from other State Departments in the form of funds.

7·2 INVOLVEMENT OF OTHER ORGANIZATIONS

The value of the training programme was enhanced by the involvement of many organizations during the development and presentation of the scheme.

RECOMMENDATION 19.

That personnel from relevant agricultural education and extension agencies, producer organizations and individual farmers be closely involved in the development and presentation of On-Farm Training Schemes.

The above organizations have continued to be involved in subsequent courses.

7·3 COMMUNICATION LINKS

Members of the management and evaluation committees, lecturers and institutions involved in the pilot scheme were widely dispersed across the state. Effective liaison was considered to be very important.

RECOMMENDATION 20.

That liaison between all organizations and lecturing staff be regarded as essential in the planning, implementation and evaluation of Certificate in Farm Practice programme.

The Department of Further Education has since set up a Rural Studies Programme Committee. This group provides a formal DFE curriculum development service throughout the Department for all rural studies courses. Formal liaison requirements for the farm practice course are handled by the Programme Committee when curriculum development issues arise. Other matters are handled by designated Departmental officers.

7·4 LOCATION OF OFF-PROPERTY TRAINING PROGRAMMES

RECOMMENDATION 21.

All possible venues be considered for Certificate in Farm Practice Courses.

Later courses have used a wide range of external sources e.g. Roseworthy Agricultural College, interstate colleges and other DFE colleges.

7·5 EVALUATION OF FUTURE SCHEMES

Management committees in each region tend to be taking over an evaluation role along the lines recommended in the body of the report. Unlike this evaluation project in which research, planning, development and implementation started from 'scratch', the function of evaluations for future Farm

Practice courses is to assess the effectiveness of the implementation and maintenance of the course.

The state coordination role is presently the responsibility of the Rural Studies Programme Committee where matters of curriculum development are concerned. Other curriculum service requirements are coordinated at State level by designated officers as well as by means of regular meetings of course coordinators.

7.6 FEEDBACK FROM TRAINEES AND MASTER FARMERS

The feedback provided by trainees and master farmers enabled the strengths and weaknesses of the training scheme to be identified. This in turn enabled the scheme to be modified accordingly without undue delay.

RECOMMENDATION 22.

Feedback provided by trainees and master farmers should continue to be sought in future training schemes.

Feedback is being sought each time the Farm Practice Course is implemented in a new location. In general the procedures found successful during the pilot course are used for the new location.

7.7 TRAINING OF PART-TIME LECTURERS

Part-time lecturers from a variety of occupations and organizations were involved in teaching trainees. The evaluation committee considered that the presentation of subject matter could be improved in some cases if a suitable short teacher training course is made available.

RECOMMENDATION 23.

Short teacher training courses be made available for part-time lecturers.

This has tended not to happen mainly because part-time lecturers have generally found it difficult to attend teacher training sessions. Even so, it is felt that information relating to trainee characteristics and the nature of on-property practical activities would be attractive to lecturers.

7·8 ON-PROPERTY TRAINING

It is considered that the on-property training activities must be more fully prescribed than in the original log-book. "The practical skills instruction and log-book for 1980-81" (item 11 in the publication *"Curriculum Materials for the Pilot Certificate in Farm Practice Course"*) is an improvement in this regard. Master farmers and trainees have responded favourably to the inclusion of more detail. Ratification by the Course Development Committee is considered essential.

RECOMMENDATION 24.

Future farm practice courses use log-books containing more fully prescribed on-property training activities.

RECOMMENDATION 25.

The log-book be ratified by the Course Development Committee.

7·9 OFF-PROPERTY TRAINING

It is considered that desired outcomes should be more specific than many of those used in the pilot course. They should be developed for each subject area.

RECOMMENDATION 26.

Future farm practice courses include comprehensive lists of expected trainee outcomes.

RECOMMENDATION 27.

That trainee assessment tests be based upon expected trainee outcome.

This is being done.

7·10 VISITS BY COURSE SUPERVISOR

RECOMMENDATION 28.

That regular visits to the farm of each trainee by the course supervisor and other relevant personnel are an essential and integral part of the scheme.

This is being done.

Appendices

APPENDIX 1

EVALUATION COMMITTEE MEMBERS

Mr. A. Fox	Research Officer Research Branch Dept. of Further Education
Mr. R. Hodge	Lecturer Curriculum Development Branch Dept. of Further Education
Mr. D. Kuhl	Principal Education Officer Research Branch Dept. of Further Education
Mr. R. McEwen	Education Officer Curriculum Development Branch Dept. of Further Education
Mr. G. Robinson	Principal Extension Officer Dept. of Agriculture and Fisheries
Mr. R. Schilling	Education Officer Research Branch Dept. of Further Education
Mr. B. Sheahan	Senior Lecturer (Agricultural Extension) Roseworthy Agricultural College
Mr. J. Skull	Lecturer in Rural Studies School of Business, Rural and Technical Studies Centre for Open Studies Open College of Further Education
Mr. W. Sutton	Executive Officer and M.D.O. United Farmers and Graziers of S.A. Inc.
Mr. C. Trethewey	Course Supervisor Rural Studies Lecturer Eyre Peninsula Community College
Miss P. von Elm	Industrial Training Officer Training Branch Dept. of Employment and Youth Affairs

APPENDIX 2

SURVEY SHEETS FOR POTENTIAL TRAINEES AND MASTER FARMERS

DEPARTMENT OF FURTHER EDUCATION

2 (a) INFORMATION SHEET - FARMER TRAINING SCHEME

The following particulars are required from all persons intending to participate in the farmer training programme. This information is CONFIDENTIAL and is required only for the purpose of course design.

1. Name: .....

2. Address: .....
.....
Telephone: .....

3. Location of farm: .....

4. Age: 15 - 20
21 - 25
26 - 30
31 - 35
36 - 40
40+

5. Years of schooling: .....

6. Year of leaving school: .....

7. Main farming enterprises (i.e. sheep, beef, cereals, etc.)
.....
.....
.....

8. Do you normally work on a farm?
Yes No

9. Are you the owner or an employee?
Owner Employee

10. How many years of farming experience have you had?

.....years.

11. What four principal subjects (as in the Rural Studies brochure) would you most like to complete?

....

....

12. What four agriculture subjects (as in the Rural Studies brochure) would you most like to complete?

....

....

13. Would you be prepared to undertake the block release in Adelaide as outlined?

Yes No Prefer another location (please state).

.....

14. What block release arrangement would be most suited to you?

twice yearly blocks of 2 weeks .....

twice yearly blocks of 3 weeks .....

twice yearly blocks of 4 weeks .....

one block per year of 4 weeks .....

one block per year of 6 weeks .....

no block release at all .....

15. If the answer to the preceding question is no, what form of training would you find most suitable? (please state)

.....

16. Would you be able to attend field day activities as outlined, bearing in mind that seasonal work commitments will be considered in programming such events?

Yes No

17. Any other comments.

.....

.....

.....

2 (b) DEPARTMENT OF FURTHER EDUCATION

Information Sheet - On Farm Training Scheme

The following information is required for course development work only. All details will remain entirely CONFIDENTIAL.

Those persons who have not yet completed an information sheet should answer all questions.

Section I

1. Name: .....

2. Address: .....
.....
Telephone number: .....

3. Location of farm: .....
(and mark the position of the farm on the map supplied)

4. Age: 15 - 20
21 - 25
26 - 30
31 - 35
36 - 40
40+

5. Years of schooling (i.e. Year 10, Year 11, etc. not grade).

6. Year of leaving school (i.e. 1970, 1971 etc.)

7. Main farming enterprises in which you require additional knowledge (i.e. sheep, beef, cereals, etc.).

8. Do you normally work on a farm?

Yes No

9. Are you the owner or an employee?

Owner Employee

10. How many years of farming experience have you had?

.....years.

Section II (all potential students to complete this section)

11. Would you prefer to undertake the block release component

in Adelaide?

in Port Lincoln?

in another area?

no particular preference?

12. Are the proposed block release times of March and September suitable to you?

Yes No

13. Would you still be willing to undertake this training course if Commonwealth Employment Service monies are not granted?

Yes No

14. Would you be willing to undertake the subject 'Farm Bookkeeping' by correspondence before the proposed course begins in March 1978?

Yes No

15. Would you be willing to undertake 'Business Management (Farming)' by correspondence in the period between the March and September block releases in 1978?

Yes No

16. Would you be willing to participate in both night and day classes in your district between the periods of block release, bearing in mind that a maximum of one day per week would be involved?

Yes No

Section III

17. Name and address of the master farmer responsible for supervising the students in daily farm operations. (If your father will be acting in this capacity, please state.)

Name: .....

Address: .....
.....

18. What is the length of experience of the master farmer?
.....years.

19. What major fields has the above experience been in?

Please list: .....
.....
.....

20. Does the master farmer feel confident that he can perform the instructional and supervisory tasks involved in this scheme?

Yes No Undecided

21. Would the master farmer be willing to participate in an elementary supervision and teaching methodology course comprising four half-day sessions?

Yes No

22. Would the master farmer be willing to accept students on a rotational basis to provide a range of student experiences?

Yes No

APPENDIX 3

PILOT MASTER FARMER INDUCTION PROGRAMME

AIMS:

* To improve the instruction and supervision skills of the master farmers participating in the Farm Practice Certificate course.

* To inform Master Farmers of their responsibilities as supervisors.

PROGRAMME

Day 1

9.45 am	Morning tea
10.00 am	Introduction
11.00 am	Basic Principles of Learning
12.30 pm	Lunch
1.00 pm	The Four Step Method
2.00 pm	Task Analysis

Day 2

10.00 am	Fault Analysis
11.30 am	Practice Sessions
3.30 pm	Forum - The On-Farm Training Scheme

MASTER FARMER'S COMMENTS

* 1st Day - too theoretical - should be more practical.
* Discussion with other Master Farmers was very valuable.
* Generally the Programme very valuable. It should be continued for future courses.

APPENDIX 4

ACHIEVEMENT AND OTHER TEST SCORES FOR EACH TRAINEE

Trainee No.	Age (yrs.)	School level Achieved (yrs.)	Farm Experience (yrs.)	Literacy Score (%)	Numeracy Score (%)	Pre & Post Block Release Tests (%)				Farm Skills Assessment (%)						Overall Performance Score (%)	Grade (P=Pass C=Credit D=Distinction)
						1	2	3	4	Tractors	Harvesters	Sheep	Slaughtering	Welding	Projects (%) Assignments		
1	17	11	1	40	57	35/45	26/43	18/37	27/73	87	77	78	74	62	74	65	P
2	17	12	0	53	74	65/79	52/73	53/76	53/84	87	80	80	72	60	78	76.9	P
3	17	10	2	65	17	66/75	51/75	45/69	49/82	80	70	82	68	75	78	75.4	P
4	16	10	1	42	39	30/40	36/36	17/36	17/53	67	57	74	62	60	51	53.6	P
5	17	11	1	67	74	80/84	a/a	a/a	a/a	a	a	a	a	a	a	a	–
6	20	10	5	67	65	74/89	64/86	53/67	55/88	87	97	80	74	86	74	82.8	C
7	17	12	0	90	100	90/95	a/a	a/a	a/a	a	a	a	a	a	a	a	–
8	17	11	1	57	65	65/85	58/76	45/69	55/85	73	67	82	68	79	62	74.6	P
9	19	09	5	75	61	47/73	50/59	a/a	a/a	80	a	a	a	a	a	a	–
10	17	10	2	78	70	60/73	63/72	40/69	37/84	87	73	a	50	73	70	a	–
11	17	10	2	70	52	50/84	42/71	42/69	48/86	87	77	80	74	54	79	76.1	P
12	16	12	0	53	52	51/83	56/86	47/69	41/89	93	87	79	60	68	77	79.1	P
13	16	10	1	63	61	58/75	53/70	42/51	42/75	87	83	84	68	78	45	71.6	P
14	17	10	2	57	65	57/69	a/a	a/a	a/a	73	a	a	a	a	a	a	–
15	17	11	1	67	91	64/82	75/82	53/68	53/95	87	70	78	76	63	87	78.8	P
16	18	10	3	57	74	72/77	69/78	49/73	67/97	93	83	76	68	64	65	77.4	P
17	16	11	0	78	87	69/87	67/83	42/71	46/91	80	83	87	68	69	84	80.3	C
18	17	11	1	58	48	63/82	67/78	46/67	51/92	87	100	87	74	74	67	80.8	C
19	16	10	1	53	30	49/64	49/60	36/51	39/85	67	67	80	60	69	65	66.8	P
20	16	9	2	50	52	44/58	42/71	39/63	38/84	87	90	84	60	65	51	71.3	P
21	17	11	1	85	100	79/93	83/89	55/79	60/94	80	100	73	84	76	80	84.8	D
22	17	12	0	60	78	73/79	55/77	50/72	44/87	80	73	73	68	71	82	76.2	P
23	14	9	0	62	78	52/70	46/74	35/68	34/82	73	70	84	72	60	86	73.9	P
24	17	11	1	80	91	73/93	75/88	50/77	49/91	87	100	82	68	75	86	84.7	D
25	17	11	1	75	96	65/87	75/92	49/77	59/92	80	70	87	68	60	86	79.9	C
26	17	10	2	67	74	62/84	69/74	57/76	41/84	73	73	82	60	71	64	74.1	P
27	16	11	0	47	87	63/79	a/69	52/68	49/89	80	90	78	64	74	69	76.0	P
28	17	11	1	72	70	71/86	a/84	58/66	55/82	80	83	84	68	84	87	80.4	C
Average	16.9	10.6	1.3	63.8	68.3	61.5/77.5	57.8/73.7	45.1/66.1	46.2/85.1	81.3	80.0	81	68	70	76	75.7	

APPENDIX 5

FARM LOCATION ACCORDING TO POSTCODE

Post Code	Number of Farms
5602	3
5603	3
5605	5
5606	1
5607	4
5620	1
5631	2
5632	4
5633	1
5670	3
Total	27

APPENDIX 6

LECTURER INVOLVEMENT DURING BLOCK RELEASES

MARCH 1978 BLOCK RELEASE	Number of lecturers	Hours of class contact
Department of Further Education		
- Eyre Peninsula Community College	2	105[1]
- Open College	1	18
Department of Agriculture & Fisheries		
- Adelaide	1	12
- Port Lincoln	5	34
Other Government Departments	2	18
Private Enterprise	5	45
Farmers	2	6
March totals	18	238[2]

SEPTEMBER 1978 BLOCK RELEASE	Number of lecturers	Hours of class contact
Department of Further Education		
- Eyre Peninsula Community College	1	34[3]
- Open College	2	27
Roseworthy Agricultural College	14	120
September totals	17	181[2]

[1] These figures do not include E.P.C.C. Principal's or Course Supervisor's involvement in after hours supervision of trainees.

[2] The extra 57 hours in March 1978, compared to September, can be attributed to the time spent by the course supervisor in leading discussions, assisting with demonstrations and in observing part-time lecturers.

[3] In addition to this time the Course Supervisor from Eyre Peninsula Community College was in attendance for the 3 week period in a co-ordinating and supervisory role.

MARCH 1979 BLOCK RELEASE	Number of Lecturers	Hours of Class Contact
Department of Further Education		
- Eyre Peninsula C.C.	2	50
- Open College	2	48
- Whyalla C.F.E.	1	24
Department of Agriculture		
- Port Lincoln	7	44
- Adelaide	1	3
Other Government Departments	2	4
Private enterprise firms	4	7
Farmers	1	3
March 1979 totals	20	183

SEPTEMBER 1979 BLOCK RELEASE	Number of Lecturers	Hours of Class Contact
Department of Further Education		
- Eyre Peninsula C.C.	2	111
- Open College	-	-
Department of Agriculture		
- Port Lincoln	4	10
- Adelaide	-	-
Other Government Departments	1	5
Private enterprise firms	10	24
Farmers	5	16
September 1979 totals	22	166

APPENDIX 7

FIRST BLOCK RELEASE EVALUATION MATERIALS

7 (a) ACHIEVEMENT TEST

DEPARTMENT OF FURTHER EDUCATION
EYRE PENINSULA COMMUNITY COLLEGE

COURSE: Certificate in Farm Practice

TEST: First Block Release
March 1978

TIME: 1½ Hours

INSTRUCTIONS TO TRAINEES

1. Answer all questions.
2. Each question in Section A is worth 3 marks (subtotal 84).
   Each question in Section B is worth 1 mark (subtotal 16).

TOTAL - 100 marks

3. Write clearly.
4. Place your name below

NAME .....

SECTION A

SOIL SCIENCE

1. Of what materials are soils composed?

2. What factors cause soil erosion?

AGRICULTURAL BOTANY

3. What are the functions of plant roots?

4. How do clovers and medics affect soil fertility?

PEST AND WEED CONTROL

5. What important details would you find on a pesticide label?

6. Briefly describe how and where you would dispose of empty pesticide containers?

CROP MANAGEMENT

7. What is the purposes of cultivation in cereal growing?

8. What factors determine the sowing time of a crop?

PASTURE MANAGEMENT

9. What do plants compete for in a pasture?

10. Why have a crop/pasture rotation?

ANIMAL SCIENCE

11. What are the functions of the kidneys?

12. List the main parts of the male reproductive system?

SHEEP HUSBANDRY

13. Name one breed of sheep in each of these categories:

    (a) Prime lamb production.

    (b) Wool growing.

    (c) Dual purposes.

14. What is:

    (a) a weaner?

    (b) a hogget?

    (c) a wether?

BEEF HUSBANDRY

15. List 3 differences between Angus and Brahma cattle.

16. What is:

    (a) a steer?

    (b) a heifer?

    (c) a bullock?

FARM MANAGEMENT

17. Why are farm records kept?

18. What is meant by depreciation?

AGRICULTURAL ELECTRICITY

19. Why are wet floors dangerous when working with live circuits and power tools?

20. Why is a fuse fitted in an electrical circuit?

AGRICULTURAL WELDING

21. What is penetration in a weld?

22. Describe each of the following:

    (a) a butt weld

    (b) a lap weld

    (c) a fillet weld

BASIC WORKSHOP PRACTICE

23. What care must be taken when handling petrol in drums?

24. Describe 3 precautions to observe before using a grinding machine?

AGRICULTURAL MECHANICS

25. List 3 faults which could cause an engine to overheat.

26. Briefly describe 2 types of lubrication systems used with 2 stroke engines.

AGRICULTURAL CONSTRUCTION

27. What is a contour line?

28. Why is a plumb bob used in construction?

SECTION B

TECHNICAL TERMS

1. What is a petiole?

2. What is xylem?

3. What is an herbicide?

4. What is a wetting agent?

5. What is a soil horizon?

6. What does infiltration rate mean?

7. What is a ligule?

8. What is A.I.?

9. What is lactation?

10. What is the gestation period?

11. What is a carburettor?

12. What is meant by the word flux?

13. What is a single cut file?

14. What is an electrode?

15. What is amperage?

16. What is voltage?

7 (b) TRAINEE REACTION QUESTIONNAIRE

DEPARTMENT OF FURTHER EDUCATION
EYRE PENINSULA COMMUNITY COLLEGE

CERTIFICATE IN FARM PRACTICE QUESTIONNAIRE

The main purpose of this Questionnaire is to find out how students view the "CERTIFICATE IN FARM PRACTICE" Course. Your comments will assist the College to modify and improve the course.

Please circle the number that best reflects your opinion. Please be frank in your responses, whether these are positive or negative. There is no need to sign your name.

Questions

Are there any parts of the first part of this course that you:

(1) Liked (please describe briefly).

(Say why.)

(2) Disliked (please describe briefly).

(Say why.)

(3) Found particularly difficult (please describe briefly.)

(Say why.)

(4) Was the content of the course in line with what you expected.

Definitely				Definitely not
5	4	3	2	1

(5) Considering what you gained from the first part of this course are you pleased that you attended?

Definitely				Definitely not
5	4	3	2	1

(6) Do you feel that there was enough variation in the evening programme?

Strongly agree				Strongly disagree
5	4	3	2	1

(7) Did you find advantages in discussion with fellow students during non-class times?

Strongly agree				Strongly disagree
5	4	3	2	1

(8) Did you experience any difficulties associated with all students boarding together.

Many difficulties No difficulties

5 4 3 2 1

Brief Description (no names)

(9) Which teaching method did you like most? (Number in order or preference.)

Lectures
Discussion in lectures
Small Group discussion
Practical Sessions
Assignments

(10) Are there any other comments you care to make concerning the classrooms and workshops., e.g. temperature, comfort, noise, discipline, equipment and materials, social life, work load etc.

Thank you for your assistance.

7 (c) DETAILED ANALYSIS OF TRAINEE RESPONSES TO THE FIRST BLOCK RELEASE

Question 1

Are there any parts of the first block of the course that you particularly liked?

- Mechanics (9)
- Learnt a lot (7)
- Welding (7)
- Course will help me on the farm (5)
- Good meals (4)
- Construction (4)
- Interesting lectures (3)
- Practical work useful and interesting (3)
- Safety lectures (3)
- Given responsibility (that is, treated like adults) (2)
- Good teachers (2)
- Samcor visit (2)
- Animal Science (1)
- Electricity (1)
- Farm Management (1)

The applied topics of Mechanics, Welding and Construction were the most preferred topics. The trainees found these to be interesting and of direct use to them on the farm.

Question 2

Are there any parts of the first block release that you particularly disliked?

- Being present on Sunday night (insufficient time off on weekend) (3)
- Too much theory (3)
- Welding too basic (3)
- Some lectures too long (1)
- Get very little sleep in earlier part of 3 week block (viz. noisy dormitory) (1)

No major dislikes were evident from trainees answers. Three trainees expressed a preference for keeping Sunday night free. Some felt there was too much theory and that welding was too basic.

Question 3

Were there parts of the course that you found particularly difficult?

- Business Management (15)
- Agricultural Electricity (3)
- Some lecturers very boring (1)
- Soil science rather irrelevant (2)
- Botany (1)
- Maths test (1)

Fifteen students (56%) found the Business Management topic particularly difficult. There is a need to re-examine the aims, content, terms used and method of presentation before continuing with this topic. It is suspected that some of the difficulties experienced in this topic may have been due to a lack of ability in literacy and numeracy skills.

Question 4

Was the content of the course in line with what you expected?

Five point Likert scale from *Definitely no* (1) to *Definitely* (5).
Mean = 3.78, Standard Deviation = 0.64, Range = 3-5, N = 27.

The average value of 3.78 (on a five point scale) the small standard deviation and the minimum in range value of 3 indicates that the content of the course was reasonably consistent with the trainees' expectations.

Question 5

Considering what you gained from the first part of this course, are you pleased that you attended?

Five point Likert scale from *Definitely not* (1) to *Definitely* (5).
Mean = 4.81, Standard Deviation = 0.40, Range = 4-5, N = 27.

The very high mean value (and small deviation) indicates strong consensus by students of their pleasure in attending the first block release training programme.

Question 6

Do you feel that there was enough variation in the evening programme?

Five point Likert scale from *Strongly disagree* (1) to *Strongly agree* (5).
Mean = 3.81, Standard Deviation = 0.88, Range = 2.5, N = 27.

Most trainees were in agreement that there was enough variation in the evening programme (i.e., two thirds of the trainees were in the range of 2.9 - 4.7).

Question 7

Did you find advantages in discussion with fellow trainees during non class times?

Five point Likert scale from *Strongly disagree* (1) to *Strongly agree* (5).
Mean = 3.89, Standard Deviation = 0.80, Range 3-5, N = 27.

A mean value of approx. four on a five point scale indicates trainees' discussions with their colleagues were considered to be advantageous between class periods.

Question 8

Did you experience any difficulties associated with all trainees boarding together?

Five point Likert scale from *No difficulties* (1) to *Many difficulties* (5).
Mean = 1.74, Standard Deviation = 0.81, Range = 1-4, N = 27.

The comments made in this section were:

- o Lack of sleep (4)
- o Everyone got on well together (2)
- o Latecomers disturbed those already in bed (2)
- o Noise and unruly behaviour in the dormitory (1)
- o A few did not know when to stop (1)
- o Willingness to co-operate (1)
- o Taught us to live together, be tolerant and understand each other (1)

The mean of 1.74 indicates that a few difficulties were experienced by trainees boarding together, the main one being an inability to get sufficient sleep - a not surprising result when several trainees sleep in the one dormitory.

Question 9

Which teaching method did you like most (number in order of preference)?

Table 2 indicates the teaching methods in the order of preference as nominated by trainees. The most preferred method has the lowest mean value.

TEACHING METHOD PREFERRED BY TRAINEES

Teaching Method	Mean	Std Dev^{n}	Range	N
Practical sessions	1.35	0.69	1-4	26
Discussion in lectures	2.38	0.71	1-3	24
Small group discussion	3.04	1.20	1-5	24
Lectures	3.71	0.72	3-5	24
Assignments				

Practical sessions were most preferred by the trainees, with Discussion in lectures their second preference. Lectures and assignments were the least preferred by trainees. Greater divergence of opinion was evident for Small group discussion and Lectures, than in the other three methods.

Question 10

Are there any other comments you care to make concerning the classrooms and workshops?

Comments were received on the following issues:

- Keep weekends free during the Roseworthy block release (9)
- Keep one night free (7)
- Less night lectures/more time off (3)
- More social life (1)
- Not enough activities at the hostel (1)
- Too much social life (1)
- More discipline required (1)
- Discipline is satisfactory (1)
- Need supervised sporting activities (1)
- Not enough work load (1)
- Should have more projects to make and keep (1)
- Not enough pressure in lectures (1)
- More comfort required (1)
- Classrooms very hot (1)

APPENDIX 8

SECOND BLOCK RELEASE EVALUATION MATERIALS

DEPARTMENT OF FURTHER EDUCATION

EYRE PENINSULA COMMUNITY COLLEGE

8 (a) SECOND BLOCK RELEASE ASSESSMENT - SEPTEMBER 1978

NAME .....

A. FARM MANAGEMENT

The following seventeen figures are derived from the actual performance of a S.A. farm during the drought year 1976/77. The figures related to the financial year 1/7/76 - 30/6/77 or for the close of year 30/6/77.

Crop sales receipts	$8 000
Seed purchase (barley and wheat)	$1 000
Amount owing to store, garage etc.	$1 000
Shearing and crutching costs	$1 000
Administration costs	$4 000
Total value of land & improvements	$200 000
Labour and wages	$11 000
Value of machinery and plant	$25 000
Wool sales receipts	$7 000
Crop fertiliser costs	$2 000
Balance owing on term loan	$50 000
Balance in trading bank account	$2 000
Repairs and maintenance	$2 000
Weed & pest control costs (crop)	$2 000
Sheep sale receipts	$4 000
Value of livestock	$9 000
Stock health and husbandry costs	$1 000

1. Using the information given above, draw up a table showing:

   (a) All the receipts for the year.
   (b) All the expenses for the year.
   (c) What was the cash surplus or deficit for the year? (In other words, did he make more cash than he spent or did he spend more than he made and what was the difference?)

2. Using the information given above, draw up a table showing:

   (a) All the assets of the farm.
   (b) All the liabilities of the farm.

   (c) What is the equity (or net worth or net assets) of the farm? (In other words how much of the total value of the farming business does the farmer own?)

3. Draw up the Gross Margin for the Crop Enterprise.

4. Using the information gained in questions 1-3, give your view of how well the farm performed for this year.

DEPARTMENT OF FURTHER EDUCATION

EYRE PENINSULA COMMUNITY COLLEGE

PRE-BLOCK RELEASE EVALUATION - AUGUST 1978

NAME .. ..

B. ENGINEERING

1. Give two reasons why it is good practice to drill a pilot hole before using a large twist drill.

2. List four methods of locking a nut to prevent it loosening in service.

3. List three ways in which rusting can be prevented.

4. A chisel being sharpened on a grinding wheel suddenly turns purple at the cutting edge.

   This has been caused by?

   As a result of the above colour change, the cutting ability of the chisel will?

5. List five safety precautions that should be taken when using a workshop grinder.

6. What things would you consider when choosing the size or gauge of electrode for a particular arc welding job?

7. List two ways in which oxygen cylinders differ from acetylene cylinders.

8. Why is flux necessary for bronzing?

9. What is the effect of using a too intense heating flame when cutting metal with an oxy torch?

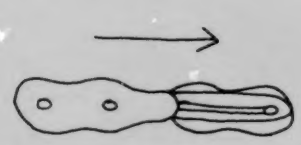
10. Why are shear pins often fitted in power drives?

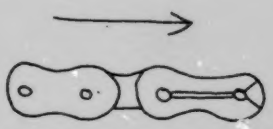
11. If a shear pin broke during the operation of a machine what is the most important step you would take before using a machine again?

12. What would you use to replace a broken shear pin?

13. Why is this so important?

14. Tick the diagram that has the horse-shoe clip on the roller chain facing the correct way for the direction of chain travel.





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DEPARTMENT OF FURTHER EDUCATION

EYRE PENINSULA COMMUNITY COLLEGE

PRE-BLOCK RELEASE EVALUATION - AUGUST 1978

NAME .....

C. CROPS AND PASTURES

1. (a) Name two grain legume crops.

(b) What is the main reason for these crops being called legume crops?

2. (a) Name two oilseed crops.

(b) Give two reasons why some farmers grow these crops.

3. When talking about conserved feed, what does the term "digestible dry matter" mean?

4. What is the best stage at which to cut an oat crop for hay?

5. What is the easiest method of telling a clover plant from a medic plant? (Use a diagram if necessary).

6. List five parts of the plant that you could use to identify different species of fully grown medics.

7. (a) What special precautions should be taken when growing any crops for seed production?

(b) What is the purpose of grading seed before sowing?

DEPARTMENT OF FURTHER EDUCATION

EYRE PENINSULA COMMUNITY COLLEGE

PRE-BLOCK RELEASE EVALUATION - AUGUST 1978

NAME .....

D. ANIMALS

1. Describe briefly what is meant by the following sheep operations:

   - Jetting is

   - Mulesing is

   - Crutching is

2. What is the main reason for doing each of the above operations?

   - Jetting is done to

   - Mulesing is done to

   - Crutching is done to

3. Describe briefly what is meant by the following cattle operations:

- Dehorning is

- Drenching is

- Foot trimming is

4. What is one reason for doing each of the above operations?

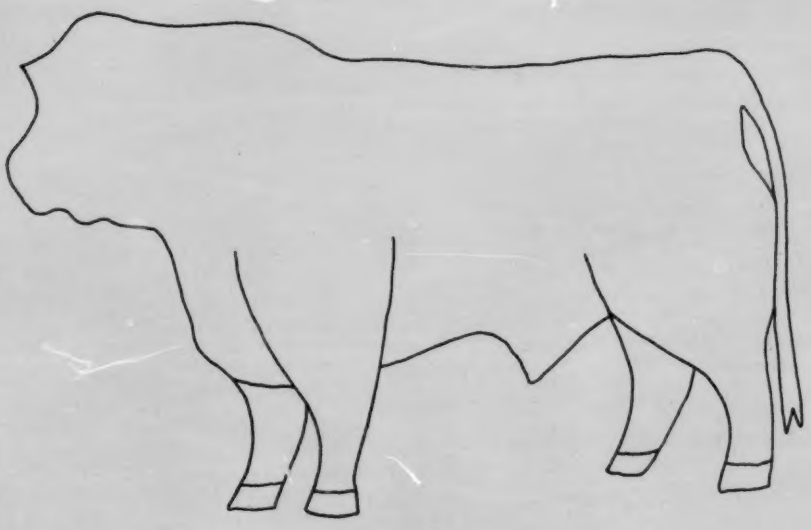
- Dehorning is done to

- Drenching is done to

- Foot trimming is done to

5. On the picture of the beast provided, locate the following: (use arrows and the number rather than the name).

1. Muzzle
2. Jaw
3. Throat
4. Shoulder
5. Loin
6. Back
7. Jip bone
8. Prepuce
9. Tail head
10. Pins or hooks
11. Thigh
12. Hock
13. Brisket
14. Chest
15. Ribs
16. Flank
17. Heart girth
18. Dewlap
19. Heel
20. Pastern
21. Elbow
22. Knee
23. Fetlock



6. On the diagram of the carcass show where the following cuts of meat come from: (Use an arrow and the number rather than the full name.)

1. Rump
2. Fillet
3. Silverside
4. Round steak
5. Brisket
6. Blade or Bolar
7. Sir loin
8. Topside
9. Set of ribs
10. Chuck

8 (b) TRAINEE REACTION QUESTIONNAIRE

ON-FARM TRAINING SCHEME

SECOND BLOCK RELEASE

Course Evaluators are interested in your opinions about each topic of the On-Farm Training Scheme.

Please be quite frank in your answers, regardless of whether they are positive or negative. There is no need to indicate your name. Please answer each item. Your answers will enable improvements to be made to future courses.

Please indicate your opinion on each item by circling the appropriate number on the five point scale. For example, if you found the lecturer reasonably easy to hear, number 4 would be circled as indicated:

Easy to hear 5 4 3 2 1 difficult to hear

Name of Lecturer .....

Topic .....

SUBJECT MATTER

1.	Easy to understand	5	4	3	2	1	difficult to understand
2.	Too much material	5	4	3	2	1	too little material
3.	Useful	5	4	3	2	1	not useful

Are there other comments you would like to make about the subject matter?

.....
.....
.....

PRACTICALS/DEMONSTRATIONS

4.	are relevant to the lecture series	5	4	3	2	1	not relevant
5.	I would like more practical sessions	5	4	3	2	1	I would like fewer practical sessions
6.	Have been well organised	5	4	3	2	1	poorly organised
7.	Are held too long after the relevant lecture	5	4	3	2	1	soon after the lecture
8.	Did you consider at this college to be worthwhile	5	4	3	2	1	not worthwhile

Are there other comments you would like to make about practicals/ demonstrations/attendance at college?

.....
.....
.....

ASSIGNMENTS/PROJECTS

9.	Relevant to the lecture series	5	4	3	2	1	not relevant
10.	Too many assignments	5	4	3	2	1	too few assignments
11.	Too short	5	4	3	2	1	too few assignments
12.	I get sufficient feedback from the lecturers about my assignments	5	4	3	2	1	insufficient feedback

HAVE YOU ANY OTHER COMMENTS TO MAKE ABOUT THIS 'BLOCK' OF TRAINING?

.....

.....

.....

THANK YOU FOR ANSWERING THIS QUESTIONNAIRE

8 (c) A SUMMARY OF TRAINEE RESPONSES TO THE SECOND BLOCK RELEASE

The results from the 26 trainees are presented separately under each of the four topics. The question number, the statement and its position in relation to the five point Likert scale, the resultant mean, standard deviation, range, and the number of students answering the question are presented first.

Remarks made by the trainees to the open ended statement, 'any other comments' and the researcher's comments on the results of each question follow. Similar remarks made by two or more trainees only are included.

FARM MANAGEMENT

Subject matter

Number		Statement	Mean	Std Dev^n	Range	N
Q1	Easy to understand (5)	to Difficult to understand (1)	2.54	1.03	1-5	26
Q2	Too much material (5)	Too little material (1)	3.54	0.76	2-5	26
Q3	Useful (5)	Not useful (1)	3.73	1.08	1-5	26

Trainees indicated they had some difficulty understanding the Farm Management subject matter (2.54), considered they had more than a moderate amount of material presented (3.54), but considered it to be useful (3.73).

General comments:

- Too difficult/hard to understand (6)
- Too much material covered in course (4)

Practicals/Demonstrations

Number	Statement	Mean	Std Dev^n	Range	N
Q4	Are relevant to the lecture series (5) to Not relevant (1)	3.64	0.95	2-5	22
Q5	I would like more practical sessions (5) to Fewer practical sessions (1)	3.42	0.83	2-5	24
Q6	Have been well organized (5) to Poorly organized (1)	3.71	1.08	1-5	24
Q7	Are held too long after the relevant lecture (5) to Close enough to the lecture (1)	2.64	0.95	1-5	22
Q8	Did you consider attendance at this college to be worthwhile (5) to Not worthwhile (1)	3.83	1.17	1-5	24

Trainees gave a favourable mean) rating of approx. 3.5 on the five point scale to the: relevancy of lectures (3.64); like more practicals (3.42); were well organized (3.71); and considered attendance at the college to be worthwhile (3.83). The length of time between practicals and lectures was considered to be satisfactory (2.64).

General comments:

- Lack of communication between lecturers, with the result that some work was duplicated (2).

Assignments/Projects

Number	Statement	Mean	Std Dev^n	Range	N
Q9	Relevant to the lecture series (5) to not relevant (1)	3.92	0.89	2-5	26
Q10	Too few assignments (5) to Too many assignments (1)	2.77	0.65	1-4	26
Q11	Too short (5) to Too Long (1)	2.96	0.79	1-5	25
Q12	I get sufficient feedback from the lecturer about my assignment (5) to Insufficient feedback (1)	3.36	1.25	1-5	25

Assignments were considered relevant to the lecture series (3.92), with moderate feedback given by the lecturers (3.36). The mean value of 2.77 near the mid point of the Likert scale suggests trainees were receiving an appropriate number of assignments. Four trainees considered these to be rather difficult to understand.

General comments:

- o Hard to understand (4)
- o Good topic, but too condensed and too many sections in too short a time (3).

TECHNICAL STUDIES

Subject matter

(As identical questionnaires were used for this topic and the two following topics, only the results of the questions and the trainee comments will be indicated. Readers are referred to the above section (4.7.3.1) for the wording of each of the twelve questions).

Number	Mean	Std Dev^n	Range	N
Q 1	3.81	0.85	2-5	26
Q 2	3.04	0.72	1-4	26
Q 3	4.46	0.65	3-5	26

The mean of 3.81 for Question 1 suggests that most trainees found this topic to be reasonably easy to understand. Trainees found the subject matter to be very useful (4.46) and were apparently given the right amount of material (3.04).

Trainee comments:

- o Diesel theory too difficult to grasp in such a short time (2).

Practical/Demonstrations

Number	Mean	Std Dev^n	Range	N
Q 4	4.19	0.85	3-5	26
Q 5	3.88	0.82	3-5	26
Q 6	4.00	0.75	3-5	26
Q 7	2.60	1.00	1-5	25
Q 8	4.58	0.58	3-5	26

Attendance at the college was considered well worthwhile (4.58). The relevancy (4.19) and organization (4.00) of the topic were given a positive rating and trainees preferred more practicals sessions (3.68). The mid point of the scale (2.60) in respect to the length of time between practical and tutorials was indicated, although there was considerable divergence of opinion on the issue.

Comments:

- o Good practicals/demonstrations (4)
- o Section on diesel engines was worthwhile (2)

Assignments/Projects

Number	Mean	Std Dev^{n}	Range	N
Q 9	4.15	0.88	2-5	26
Q 10	3.24	0.60	3-5	25
Q 11	3.19	0.80	1-5	26
Q 12	3.92	0.86	3-5	25

The relevancy (4.15) and amount of feedback (3.92) was considered adequate by the trainees; the number (3.24) and length (3.19) of assignments/ projects was given a mid scale rating.

Comments:

- o Need a guide as to the time allowed in each section of a project (2).

Overall comments by trainees for Technical Studies:

- o Worthwhile topic (3).

<u>PLANT STUDIES</u>

Subject Matter

Number	Mean	Std Nev^{n}	Range	N
Q 1	3.92	0.69	3-5	26
Q 2	3.08	0.48	2-4	26
Q 3	4.58	0.50	4-5	26

All trainees considered this topic very useful, easy to understand with the correct amount of material.

Comments:

o Good topic (4).

Practicals/Demonstrations

Number	Mean	Std Dev^n	Range	N
Q 4	4.42	0.70	3-5	26
Q 5	3.85	0.88	3-5	26
Q 6	4.69	0.47	4-5	26
Q 7	2.42	1.24	1-5	26
Q 8	4.62	0.57	3-5	26

Very high regard was given to the value of attending the college (4.62), the topic was considered to be extremely well organized (4.69 - consensus of all students), was very relevant (4.42) and more practical sessions were desired (3.85).

Comments:

o Practicals were very informative (4).

The time lag between practical and lectures was considered satisfactory (2.42).

Assignments/Projects

Number	Mean	Std Dev^n	Range	N
Q 9	4.46	0.71	3-5	26
Q 10	3.12	0.52	2-4	26
Q 11	3.08	0.27	3-4	26
Q 12	3.73	1.04	1-5	26

Assignments were felt to be very relevant to the topic (4.46), and trainees generally felt they were receiving adequate feedback (3.73). The mean value of trainees opinion in respect to number (3.12) and length (3.08) of assignments was at the mid point of the scale.

Comments:

o Assignments were worth doing (3).

General comments by trainees for Plant Studies:

- o Two persons were mentioned as the best teachers we had (3).
- o Plant Studies lecturers Al (2).
- o Should have more practicals (2).

Very high praise was given to the lecturers and to the way in which the topic was organized and presented.

ANIMAL SCIENCE

Subject matter

Number	Mean	Std Dev^n	Range	N
Q 1	3.85	0.83	2-5	26
Q 2	3.27	0.60	2-5	26
Q 3	3.65	1.16	1-5	26

Trainee comments

- o Subject matter too basic (3).

This topic was reasonably easy to understand (3.85), and reasonably useful (3.65) according to the mean values.

Practicals/Demonstrations

Number	Mean	Std Dev^n	Range	N
Q 4	3.96	0.82	2-5	26
Q 5	3.85	0.88	3-5	26
Q 6	3.42	1.06	1-5	26
Q 7	2.56	0.82	1-4	25
Q 8	4.42	0.70	3-5	26

Trainee comments:

- o Practicals easier to understand, so would prefer more (2).
- o Could have been more valuable if more useful subject matter had been selected (2).

A mean value of approximately four on the five point Likert scale indicates high positive regard for the 'worthwhileness' of attending (4.42), relevancy to lectures (3.96), and a preference for more practical sessions (3.85).

Assignments/Projects

Number	Mean	Std Dev^{n}	Range	N
Q 9	3.72	0.68	3-5	25
Q 10	3.08	0.40	2-4	25
Q 11	2.96	0.35	2-4	25
Q 12	2.16	1.11	1-5	25

Trainee comments:
No similar comment was made by two or more trainees.

Relevancy of assignments received an average value of nearly four (3.72), while the issues of number and length of assignments received a mid scale rating. The low mean of 2.16 in Question 12 indicated trainees considered far more feedback should be given to assignments and projects.

Overall comments by trainees for Animal Science:

- Enjoyed it very much/worthwhile (4).
- Good, but not enough practicals (2).
- Prefer not to have lectures at night (2).

8 (d) EVALUATION REPORT

BLOCK RELEASE TO ROSEWORTHY AGRICULTURAL COLLEGE

D.F.E. CERTIFICATE IN FARM MANAGEMENT

AUGUST 1978

Twenty-six students from the Eyre Peninsula spent three weeks at Roseworthy Agricultural College recently.

The students were in residence and were accompanied by some D.F.E. staff but the main teaching sessions, demonstrations etc. were organised and conducted by staff from Roseworthy Agricultural College.

This report is based on two main sessions of evidence collecting.

A. An evaluation session on the afternoon of the last day the students were at the College.

Each student completed 5 questionnaires (copies of which are available from Roseworthy Agricultural College).

1. For the subject Farm Management
2. For the subject Animal Studies
3. For the subject Plant Studies
4. For the subject Technical Studies
5. An open-ended verbal request that they detail three valuable aspects of their sessions at Roseworthy College, and three criticisms or aspects that they feel should have been changed.

B. An evaluation questionnaire completed by staff members involved in the course concerning their assessments of the students, their commitments, comments concerning their organisation, level of material and curriculum.

Both evaluation sessions were prepared, conducted and collated by Basil Sheahan.

A. Student Evaluations

As can be seen from the results attached, students were generally happy about the subjects and their presentation.

Ease of understanding was acceptable in all subjects with the possible exception of Farm Management where 11 students said that material was on the difficult side. However, the very diverse ability in the group with numeracy made the presentation of this subject to the whole group extremely difficult. Readjustments to the planned programme for some of the students had to be continually made to cater for this. A similar group said there was too much material in this subject. However, only three students classed the material as not useful. In fact, generally in all subjects material was classed as useful, especially in plant-science. This was partly expected because the stated interest of the group in this subject as the students were mainly from cropping properties.

Demonstrations and practicals were well accepted. In fact, students tended to want more practical sessions. Generally, the students regarded the attendance as well worthwhile.

Students were quite happy about the number of assignments, their relevance, and their length.

The responses of students to the open-ended request that they list three valuable aspects of their stay at Roseworthy College and three criticisms was intended to give the scope to make any general comments concerning the environment, the organisation, the facilities etc. It did this but some chose to comment again on subjects and staff, which had already been covered in previous questionnaires. The results of students' comments are included here, categorised in groups that emerged. The results are self explanatory and are included in Table 1.

B. Staff Evaluations

The twelve staff concerned with taking the D.F.E. students completed a questionnaire concerning the training period, and made general comments.

The staff involved were:

Agricultural Engineering	Mr. B. Tuncks
	Mr. D. Sutcliffe
	Mr. P. Rowland

Farm Management	Mr. K. Edwards
	Mr. P. England
	Mr. I. Cooper
	Mr. A. Dunne
Plant Studies	Mr. B. Baldwin
	Mr. R. Groom
Animal Studies	Dr. I. Fletcher
	Dr. J. Gallagher
	Mr. B. Sumner

The pre-test information was often not useful to staff in helping them prepare material. This was mainly because staff obtained the results only just before the session started by which time they had already prepared practical material, hand-out notes etc.

Questions 5 to 9 were unfortunately irrelevant as post-test material was taken by Chris Trethewey after they were given on the last day. However, R.A.C. staff do not have the results as yet.

Some staff answered Question 9 from their own assessments or subjectively. Generally it was felt satisfactory progress had been made.

Staff rated the initial knowledge level of the students as mediocre to low but generally followed up by saying that the group was quite diverse.

The majority of staff found the students were reasonably interested and motivated, and consequently their response and performance was satisfactory.

Some staff found several students "know-all" in their manner, these same students being quite unresponsive to direction. This was particularly so when an aspect of the course was taken which the students perceived as irrelevant to their own particular farm.

R.A.C. staff felt they needed more information concerning the initial level of the students. For example, pre and post tests with results from the first block release would have been useful. Again, some staff at Roseworthy presumed that these students were getting a regular weekly input in these subject areas over the whole period since they

enrolled. This resulted, of course, in higher expectations of the students' knowledge of basic principles.

Staff were also interested in being more involved in the curriculum development, especially if more information was available on what students have already done or will have the opportunity to do later. For example, was it reasonable that in their plant studies at Roseworthy, at least as much time was spent on grain legumes and oil seeds as was spent on cereals? (One student also saw fit to question this.)

Other staff comments concerned

- low literacy and numeracy among some students
- the students did not cope well with lectures, e.g. it was very seldom any written notes were taken
- couldn't see anything beyond their home property
- timing was difficult with show commitments etc.

Overall, it seems R.A.C. staff would have appreciated more knowledge concerning

(a) the nature of the course
(b) the entry level of the students, and
(c) the material already covered by the students and at what depth.

Generally staff spent at least as much of their own time in preparing sessions as they did in up-front time with the group. This was particularly so where Senior Demonstrators were preparing practicals, e.g. hay was made when the weather was inappropriate, stock had to be mustered and drafted for demonstrations, tools and equipment (steel etc.) had to be organised.

Staff felt that several of practical sessions could have been meaningful if smaller groups were present but this would have meant repeating sessions.

In conclusion, it could be said that excluding two or three exceptions, staff generally felt that the session was a worthwhile experience both

for the students and themselves and one which could well be repeated providing the resources were not stressed too much. Reservations were held concerning the extreme diversity of the group in their ability to cope with work presented, and the size of the group for practical sessions.

BASIL T. SHEAHAN
HEAD, DEPARTMENT OF EXTENSION AND EDUCATION

TABLE 1

D.F.E. BLOCK RELEASE TO R.A.C. AUGUST 1978

Each student made open-ended comments on three good points and three bad points.

		Number of Mentions	
		Praised	Criticised
Meals and accommodation		11	-
Staff at R.A.C.		9	1
College environment		7	-
Field practical sessions		9	2
Subjects	Plant Studies	12	3
	Technical Studies	7	-
	Farm Management	7	6
	Animal Studies	6	9
Transport and mobility from College		-	12
Night lessons		-	4

Other Comments

Favourable	
Theory and practice well matched	(1)
Good to see different machinery operating	(1)
Useful stay	(1)
Tours around College	(2)
Critical	
Material too elementary	(3)
Should have had more pracs and outside work	(4)
Flimsy walls and doors in living area	(2)
Timetabling not always clear	(1)
Stay not long enough	(1)
Too many notes	(1)
Programming and curriculum	(2)
Lectures not familiar with West Coast	(1)
Away from home	(1)
Stay too long	(1)
Too much material in time available	(1)
Started day too early	(1)
Some material irrelevant	(1)
Shortage of opposite sex	(1)

APPENDIX 9

THIRD BLOCK RELEASE EVALUATION MATERIALS

9 (a) ACHIEVEMENT TESTS

DEPARTMENT OF FURTHER EDUCATION

EYRE PENINSULA COMMUNITY COLLEGE

PRE-BLOCK RELEASE EVALUATION - FEBRUARY 1979

FARM MANAGEMENT NAME: .....

1. Tick the appropriate source of credit for the following purposes:

	Source of Credit	
	Bank Overdraft or Stock Mortgage	Long Term Loan
Cash to cover operating expenses		
Property purchase		
Development loans		
Minor plant purchases		
Purchase of livestock		

2. A loan of $1,000 is to be repaid in 10 yearly principal repayments of $100 each.

Interest charged at 10% will be payable each year as well.

In the table Loan A and Loan B represent 2 different methods of calculating interest.

Which of the loans has been borrowed at

(a) Simple Interest? .....

(b) Flat Rate Interest? .....

	Yearly Interest Payment		
	Year 1	Year 2	Year 3
Loan A	$100	$90	$80
Loan B	$100	$100	$100

3. List the main sources of Market Information (Concerning quantity, prices and future prospects) available to farmers.

4. Where would you go for more information on:

   (a) Farm Insurance?

   (b) Life Assurance?

   (c) Estate Planning?

5. What are the main factors that affect the price of meat?

DEPARTMENT OF FURTHER EDUCATION

EYRE PENINSULA COMMUNITY COLLEGE

PRE-BLOCK RELEASE EVALUATION - FEBRUARY 1979

TECHNICAL STUDIES NAME: .....

1. Final trowel finishing of concrete should be carried out at the correct time. When should this be done?

   - immediately after the concrete is levelled
   - while the water is still on the surface
   - after the water has disappeared
   - when the initial set has taken place

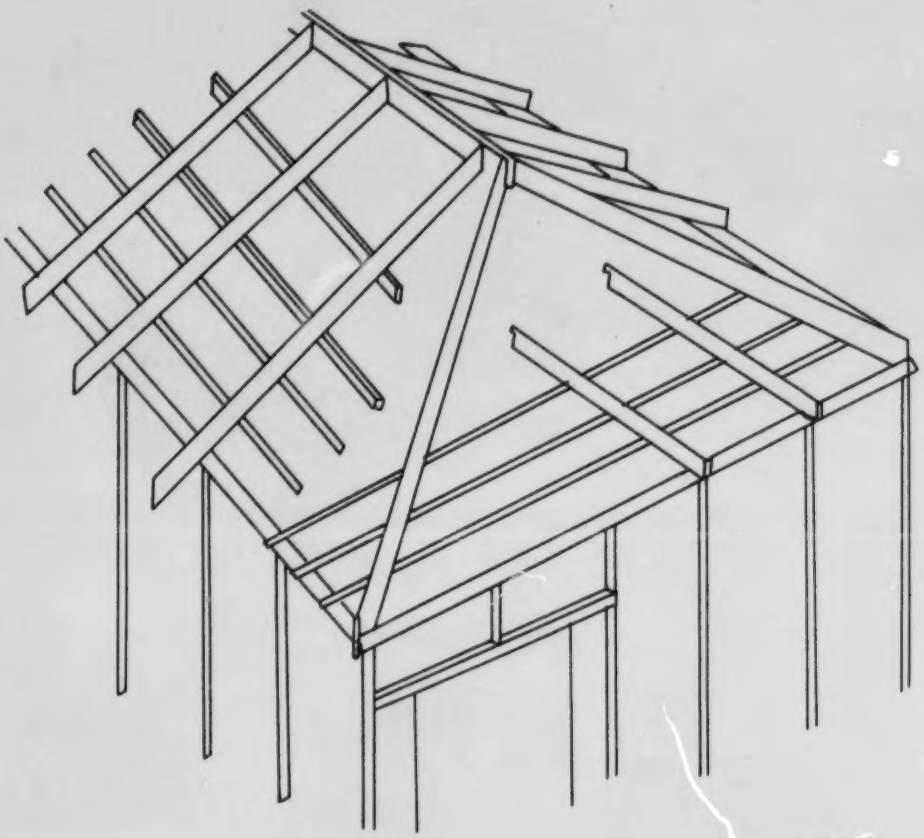
2. Concrete, once finished, should be cured to bring it to full strength. Give 2 methods of curing.

3. (a) should clay be wetted before laying?
   Give reasons for your answer.

   (b) should concrete blocks be wetted before laying?
   Give reasons for your answer.

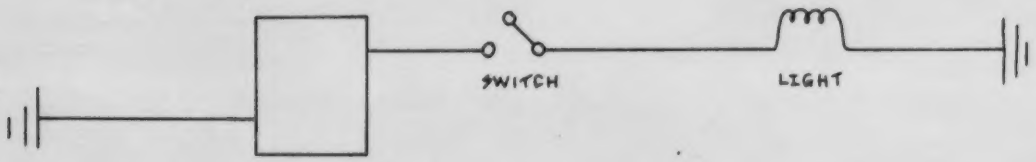
4. Locate on the diagram the following building components:

(a) studs
(b) lintel beams
(c) purlin
(d) under purlin
(e) span
(f) hip
(g) hanging beam



5. On the electrical circuit diagram supplied for a motor vehicle show the following:

(a) an ammeter with correct polarity of the leads.
(b) a voltmeter with correct polarity of the leads.



6. Which 3 effects are possible when electricity flows in a closed circuit?

7. (Tick the correct answer)

(a) The electrolyte in a fully charged battery has a specific gravity reading of:

- 2.000
- 1.500
- 1.250
- 1.200
- 1.150

(b) The maximum voltage drop in an automotive electrical circuit should be less than:

- 0.25v
- 0.50v
- 0.75v
- 1.00v
- 2.00v

(c) In a 4 cylinder engine, the cam angle reading should be:

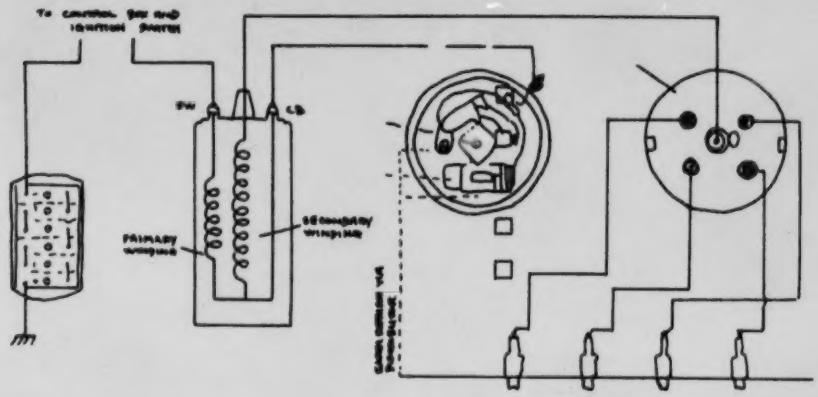
- 22.5°
- 45.0°
- 60.0°
- 75.0°
- 90.0°

8. If water had to be added to a battery each week, would this be likely to indicate:

- too little charge
- correct charge
- too much charge

9. On the ignition circuit diagram attached indicate each of the following components.

(a) battery
(b) cam
(c) spark plugs
(d) capacitor
(e) distributor cap
(f) points
(g) coil



TYPICAL COIL-IGNITION CIRCUIT

10. State 3 reasons why a starter motor may fail to operate when the starter switch is closed.

11. State 2 reasons why the contacts in a distributor may be badly burned.

12. List 3 faults which may occur if a fan belt is over tightened.

13. What precautions should be observed when using a pair of jumper leads to start a car which is fitted with an alternator?

DEPARTMENT OF FURTHER EDUCATION

EYRE PENINSULA COMMUNITY COLLEGE

PRE-BLOCK RELEASE EVALUATION - FEBRUARY 1979

PLANT STUDIES NAME: .....

1. Name 3 trace elements that are used on Eyre Peninsula.

2. Which of the following fertilizers contain Phosphorus (P) and which contain Nitrogen (N)?

   Urea
   Superphosphate
   Sulphate of ammonia
   1:1 Super/Sulphate of ammonia

3. If I bought 120 kg of 2:1 superphosphate/sulphate of ammonia, how many kg of superphosphate and how many kg of sulphate of ammonia am I buying?

4. (a) Urea contains 50% Nitrogen. Urea costs $200/tonne. What is the cost of Nitrogen per kg?

   (b) Sulphate of Ammonia contains 20% Nitrogen. Sulphate of Ammonia costs $100/tonne. What is the cost of Nitrogen per kg?

   (c) Which of the above fertilizers provides the cheapest Nitrogen?

5. Name 3 different ways by which weed seeds are spread?

6. Why is grain Hygiene (cleaning up all grain spillages and cleaning grain out of machines) and not insecticides the most effective weapon against grain insect pests?

7. If an insect is described as resistant to an insecticide, what does this mean?

8. Prior to the block release in March, I would like you to collect some grain insects from your farm.

   (a) list 4 places on your farm where you would expect to find grain insect pests.

   (b) what effect do these insects have on the grain?

9. Phostoxin is commonly used to fumigate insects.

(a) why shouldn't Phostoxin be used in sheds?

(b) if you fumigate grain in a silo, what should you do to the silo before hand?

10. In some soils clovers and medics should be inoculated. Briefly describe why.

11. List 2 pasture legumes which are suitable for

(a) acid soils ....

(b) alkaline soils ....

12. Clover pastures are often easier to establish on newly cleared land. Give 2 reasons why.

13. Complete the following table to show one advantage and one disadvantage for each method of establishing clover.

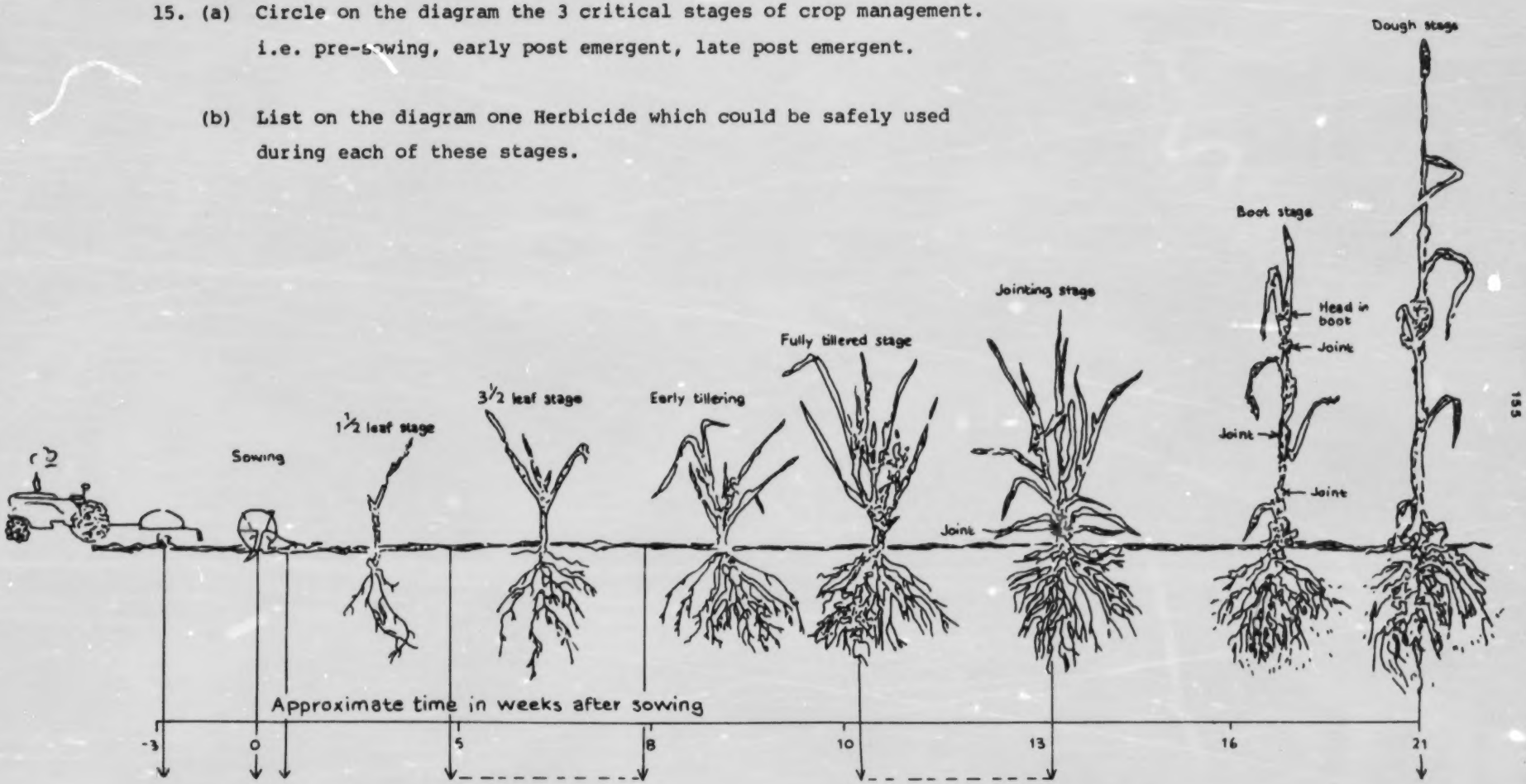
METHOD	ADVANTAGE	DISADVANTAGE
"UNDERSOWING" - this is - sowing with a crop		
"TRASHING IN" - this is - sowing into a stubble		
Sowing on a prepared seed bed		

14. Complete the following table to show which Herbicides you would use to control the following weeds in barley or wheat and show stage of growth of crop at time of spraying.

WEED	HERBICIDE	GROWTH STAGE OF CROP AT SPRAYING TIME
RYEGRASS		
WIRE WEED		
SHEEP WEED		
WILD OATS		

15. (a) Circle on the diagram the 3 critical stages of crop management.
i.e. pre-sowing, early post emergent, late post emergent.

(b) List on the diagram one Herbicide which could be safely used during each of these stages.



DEPARTMENT OF FURTHER EDUCATION

EYRE PENINSULA COMMUNITY COLLEGE

PRE-BLOCK RELEASE EVALUATION - FEBRUARY 1979

ANIMAL STUDIES NAME: .....

1. What are the 2 main local sheep diseases that can be "picked up" through cuts at shearing?

2. Why should dogs not have access to dead sheep carcases?

3. Name 2 main minerals associated with ill thrift in stock on Lower Eyre Peninsula.

4. Name 4 plants (cultivated or otherwise) common on Eyre Peninsula which can cause stock deaths.

5. Give 3 methods of giving copper to cattle.

6. (a) Which feed has the highest Energy level?

Wheat grain or Peas

(b) Which feed has the highest Protein level

Oat grain or Clover hay

7. A 40 kg ewe is being fed on an all grain diet of oats. What weight of grain is required/day to maintain that ewe in:

(a) early pregnancy ..... kg
(b) Last 6 weeks of pregnancy ..... kg
(c) Lactation with lambs at foot ..... kg

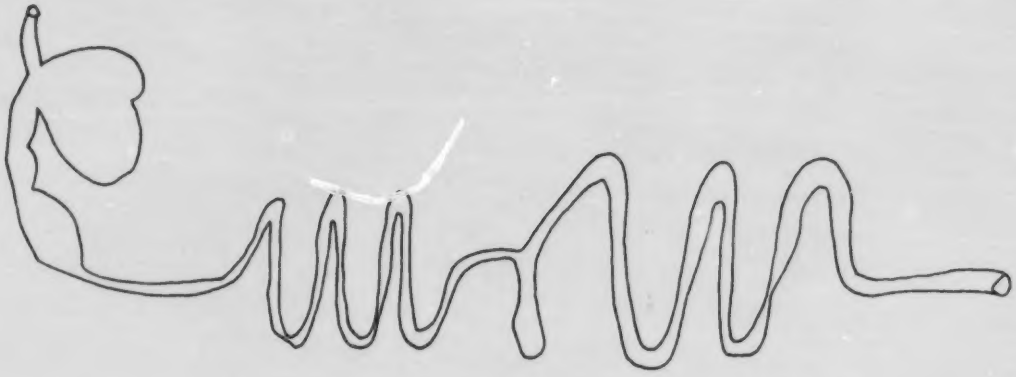
8. How would you avoid having your prime-lambs rejected at the abattoirs for:

(a) grass seeds
(b) vaccination scars

9. List 4 factors which affect sheep movement in sheep yards.

10. Indicate on the diagram the following parts of the sheep digestive system.

1. Large Intestine
2. Gullet
3. Abomasum
4. Rectum
5. Small Intestine
6. Rumen



11. Indicate also on the diagram in Q 10 where each of the following processes occur:

(a) Absorption of water
(b) Storage of food
(c) Absorption of nutrients
(d) Storage of faeces (dung)
(e) Digestion of food

9 (b) TRAINEE REACTION QUESTIONNAIRE

ON-FARM TRAINING SCHEME

SECOND BLOCK RELEASE

Course Evaluators are interested in your opinions about each topic of the On-Farm Training Scheme.

Please be quite frank in your answers, regardless of whether they are positive or negative. There is no need to indicate your name. Please answer each item. Your answers will enable improvements to be made to courses.

Please indicate your opinion on each item by circling the appropriate number on the five point scale. For example, if you found the lecturer reasonably easy to hear, number 4 would be circled as indicated:

Easy to hear 5 4 3 2 1 difficult to hear

Name of Lecturer .....

Topic .....

SUBJECT MATTER

1. Easy to understand	5	4	3	2	1	difficult to understand
2. Too much material	5	4	3	2	1	too little material
3. Useful	5	4	3	2	1	not useful

Are there other comments you would like to make about the subject matter?

.....
.....
.....

USE OF TEACHING AIDS

4. Chalkboard: easy to read	5	4	3	2	1	difficult to read
5. Overhead projector: transparencies easy to read	5	4	3	2	1	difficult to read
6. Overhead projector: sufficient time to read transparencies	5	4	3	2	1	insufficient time to read
7. Makes good use of examples and aids	5	4	3	2	1	never gives examples of uses aids
8. Were the handout sheets useful	5	4	3	2	1	not useful

Are there other comments you would like to make about the use of teaching aids?

.....
.....
.....

PRACTICAL/DEMONSTRATIONS

9. Are relevant to the lecture series	5	4	3	2	1	not relevant
10. I would like more practical sessions	5	4	3	2	1	I would like fewer practical sessions
11. have been well organized	5	4	3	2	1	poorly organised
12. Are held too long after the relevant lecture	5	4	3	2	1	soon after the lecture
13. Did you consider attendance at this college to be worthwhile?	5	4	3	2	1	not worthwhile

Are there other comments you would like to make about practicals/ demonstrations/attendance at college?

.....
.....
.....

ASSIGNMENTS/PROJECTS

14. Relevant to the lecture series	5	4	3	2	1	not relevant
15. Too many assignments	5	4	3	2	1	too few assignments
16. I get sufficient feedback from the lecturers about my assignments	5	4	3	2	1	insufficient feedback

OTHER QUESTIONS

17. Slides: relevant to lesson	5	4	3	2	1	not relevant to lesson
18. Slides: sufficient time to view	5	4	3	2	1	not sufficient time
19. Has the reference book been useful	5	4	3	2	1	not useful

HAVE YOU ANY OTHER COMMENTS TO MAKE ABOUT THIS 'BLOCK' OF TRAINING?

.....
.....
.....

THANK YOU FOR ANSWERING THIS QUESTIONNAIRE

9 (c) SUMMARY OF TRAINEE RESPONSES TO THIRD BLOCK RELEASE TRAINEE QUESTIONNAIRE

I FARM MANAGEMENT

SUBJECT MATTER		Mean	Std.Dev^n	Range	N
1. Easy to understand (5)	Difficult to understand (1)	2.25	0.63	1-4	24
2. Too much material (5)	Too little material (1)	3.29	0.56	2-5	24
3. Useful (5)	Not useful (1)	3.42	0.78	1-5	24
USE OF TEACHING AIDS					
4. Chalkboard: easy to read (5)	Difficult to read (1)	3.88	1.16	2-5	24
5. O.H.P.: easy to read (5)	Difficult to read (1)	3.88	0.89	2-5	24
6. O.H.P.: Sufft. time (5)	Insufficient time (1)	3.75	0.89	2-5	24
7. Good use of aids (5)	Aids not used (1)	2.83	0.69	1-5	23
8. Hand out sheets useful (5)	Not useful (1)	3.63	0.68	2-5	24
PRACTICALS/DEMONSTRATIONS					
9. Relevant (5)	Not relevant (1)	3.38	0.51	2-5	24
10. Should be more (5)	Should be less (1)	3.88	0.50	2-5	24
11. Well organized (5)	Poorly organized (1)	3.04	0.65	2-5	24
12. Held too long after (5) lecture.	Soon after lecture (1)	3.17	0.42	2-5	23
13. Attendance worthwhile (5)	Not worthwhile (1)	4.13	0.98	2-5	24
ASSIGNMENTS/PROJECTS					
14. Relevant (5)	Not relevant (2)	3.79	0.52	3-5	24
15. Too many (5)	Too few (1)	3.50	0.52	3-5	24
16. Sufficient Feedback (5)	Insufficient feedback (1)	2.86	0.94	1-4	23
OTHER Q's.					
17. Slides - relevant (5)	Not relevant				
18. Slides - Sufft. time to view (5)	Insufficient time (1)				
19. Reference Book - useful (5)	Not useful (1)				

II TECHNICAL STUDIES

			Mean	Std.Dev^n	Range	N
SUBJECT MATTER						
1.	Easy to understand (5)	Difficult to understand (1)	3.83	0.67	2-5	24
2.	Too much material (5)	Too little material (1)	2.54	0.78	1-4	24
3.	Useful (5)	Not useful (1)	4.67	0.75	1-5	24
USE OF TEACHING AIDS						
4.	Chalkboard: easy to read (5)	Difficult to read (1)	4.04	1.00	2-5	24
5.	O.H.P.: easy to read (5)	Difficult to read (1)	3.70	1.04	1-5	23
6.	O.H.P.: sufft. time (5)	Insufficient time (1)	3.78	0.91	2-5	23
7.	Good use of aids (5)	Aids not used (1)	4.46	0.26	4-5	24
8.	Hand out sheets useful (5)	Not useful (1)	3.96	1.26	1-5	24
PRACTICALS/DEMONSTRATIONS						
9.	Relevant (5)	Not relevant (1)	4.70	0.22	4-5	23
10.	Should be more (5)	Should be less (1)	4.17	0.75	3-5	23
11.	Well organized (5)	Poorly organized (1)	3.91	1.17	1-5	23
12.	Held too long after lecture (5)	Soon after lecture (1)	2.68	0.99	1-4	22
13.	Attendance worthwhile (5)	Not worthwhile (1)	4.70	0.22	4-5	23
ASSIGNMENTS/PROJECTS						
14.	Relevant (5)	Not relevant (1)	4.26	0.66	3-5	23
15.	Too many (5)	Too few (1)	2.83	0.42	1-4	23
16.	Sufficient Feedback (5)	Insufficient feedback (1)	3.55	1.02	2-5	22
OTHER Q's.						
17.	Slides - relevant (5)	Not relevant (1)				
18.	Slides - sufft. time to view (5)	Insufficient time (1)				
19.	Reference Book - useful (5)	Not useful (1)	2.72	1.27	1-5	18

III PLANT STUDIES

		Mean	Std.Dev^n	Range	N
SUBJECT MATTER					
1. Easy to understand (5)	Difficult to understand (1)	3.6	0.50	2-5	24
2. Too much material (5)	Too little material (1)	3.16	0.23	2-4	24
3. Useful (5)	Not useful (1)	4.17	0.49	3-5	24
USE OF TEACHING AIDS					
4. Chalkboard: easy to read (5)	Difficult to read (1)	4.13	0.55	3-5	24
5. O.H.P.: easy to read (5)	Difficult to read (1)	3.75	0.98	1-5	24
6. O.H.P.: sufft. time (5)	Insufficient time (1)	3.83	0.84	2-5	24
7. Good use of aids (5)	Aids not used (1)	4.21	0.70	2-5	24
8. Hand out sheets useful (5)	Not useful (1)	4.29	0.48	3-5	24
PRACTICALS/DEMONSTRATIONS					
9. Relevant (5)	Not relevant (1)	4.08	0.43	3-5	24
10. Should be more (5)	Should be less (1)	3.92	0.69	3-5	24
11. Well organized (5)	Poorly organized (1)	4.25	0.63	2-5	24
12. Held too long after lecture (5)	Soon after lecture (1)	2.88	0.38	1-4	24
13. Attendance worthwhile (5)	Not worthwhile (1)	4.38	0.42	3-5	24
ASSIGNMENTS/PROJECTS					
14. Relevant (5)	Not relevant (1)	3.58	0.51	3-5	24
15. Too many (5)	Too few (1)	3.13	0.29	1-5	24
16. Sufficient Feedback (5)	Insufficient feedback (1)	3.33	0.93	1-5	24
OTHER Q's.					
17. Slides - relevant (5)	Not relevant (1)	4.23	0.66	3-5	22
18. Slides - sufft. time to view (5)	Insufficient time (1)	4.18	0.73	3-5	22
19. Reference Book - useful (5)	Not useful (1)	3.16	0.93	1-5	19

IV ANIMAL STUDIES

		Mean	Std.Dev^n	Range	N
SUBJECT MATTER					
1. Easy to understand (5)	Difficult to understand (1)	4.13	0.55	3-5	24
2. Too much material (5)	Too little material (1)	3.13	0.201	2-4	24
3. Useful (5)	Not useful (1)	4.42	0.43	3-5	24
USE OF TEACHING AIDS					
4. Chalkboard: easy to read (5)	Difficult to read (1)	4.33	0.58	3-5	24
5. O.H.P.: easy to read (5)	Difficult to read (1)	3.91	0.90	2-5	23
6. O.H.P. sufft. time (5)	Insufficient time (1)	3.88	0.81	2-5	24
7. Good use of aids (5)	Aids not used (1)	4.33	0.49	3-5	24
8. Hand out sheets useful (5)	Not useful (1)	4.42	0.43	3-5	24
PRACTICAL/DEMONSTRATIONS					
9. Relevant (5)	Not relevant (1)	4.25	0.54	3-5	24
10. Should be more (5)	Should be less (1)	3.79	0.61	3-5	24
11. Well organized (5)	Poorly organized (1)	4.21	0.61	3-5	24
12. Held too long after lecture (5)	Soon after lecture (1)	2.83	0.41	1-4	24
13. Attendance worthwhile (5)	Not worthwhile (1)	4.54	0.26	4-5	24
ASSIGNMENT/PROJECTS					
14. Relevant (5)	Not relevant (1)	3.88	0.46	3-5	24
15. Too many (5)	Too few (1)	3.25	0.28	3-5	24
16. Sufficient Feedback (5)	Insufficient feedback (1)	3.46	0.69	2-5	24
OTHER Q's.					
17. Slides - relevant (5)	Not relevant (1)	4.0	0.64	3-5	23
18. Slides - sufft. time to view (5)	Insufficient time (1)	4.05	0.62	3-5	22
19. Reference Book - useful (1)	Not useful (1)	3.0	0.93	1-5	16

SUMMARY OF TRAINEE RESPONSES TO THIRD BLOCK RELEASE

FARM MANAGEMENT - COMMENTS

SUBJECT MATTER

- Difficult to Understand (2)
- Boring at times (1)
- Basically good subject matter (1)

USE OF TEACHING AIDS

- No comments

PRACTICALS AND DEMONSTRATIONS

- Not enough practical examples (2)

OTHER

- An interesting topic (2)
- Lecturer could be better (3)
- Good lecturer (1)
- Too much in too short a time (1)
- Hard to understand, boring (1)

TECHNICAL STUDIES - COMMENTS

SUBJECT MATTER

- Good, very helpful (2)

USE OF TEACHING AIDS

- Very good, well used (2)
- Interesting & useful (1)
- Not enough hand out sheets (1)

PRACTICALS/DEMONSTRATIONS

- Good, worthwhile sessions (3)
- Went through demonstrations too fast (1)
- Too many in one group (1)

OTHER COMMENTS

Topics covered were very good (5)

More on farm machinery maintenance (1)

Lecturer tends to ramble (1)

PLANT STUDIES - COMMENTS

SUBJECT MATTER

Too much to learn in the time allowed (3)

USE OF TEACHING AIDS

Well put across (1)

Direct drilling - good (1)

PRACTICALS/DEMONSTRATIONS

Very interesting (2)

More sessions on calibrating a boom spray (1)

OTHER COMMENTS

Interesting section (4)

We did not understand some of the terms which were taken for granted (1)

ANIMAL STUDIES - COMMENTS

SUBJECT MATTER

Interesting & worthwhile (2)

Too much to absorb on diseases (1)

USE OF TEACHING AIDS

Handouts can be referred to at home (1)

PRACTICALS/DEMONSTRATIONS

Good (1)

Hard to hear at abattoir (1)

OTHER COMMENTS

Good, interesting (4)

Good lecturers - keep you interested (1)

Pretty well organized

APPENDIX 10

FOURTH BLOCK RELEASE EVALUATION MATERIALS

10 (a) ACHIEVEMENT TESTS

SEPTEMBER 1979 BLOCK RELEASE PRE/POST TEST QUESTIONS

FARM MANAGEMENT

1. The main aim of Labour Management on farms is to increase productivity. List 4 other benefits which can result from improved Labour Management.

(4)

2. You decide to employ a full time workman on your farm for an annual salary of $10,000. However, you must also consider the following expenses:

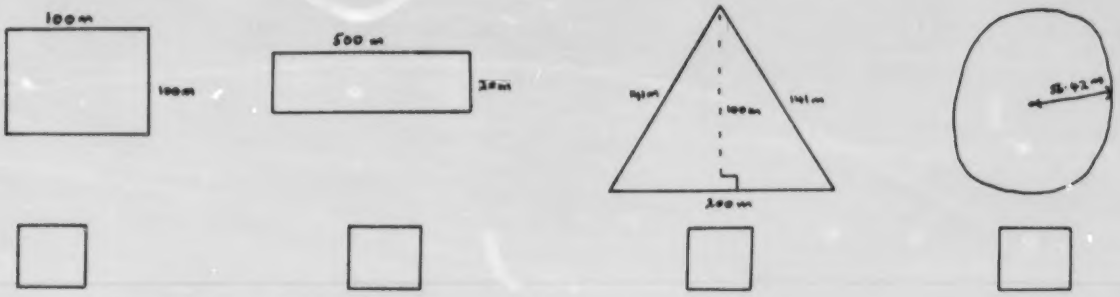
	$
Workers Compensation Insurance	.....
Value of Rent for House Supplied	.....
Holiday Pay Loading	.....
Value of Meat, Eggs and Milk Supplied	.....
Long Service Leave (Provision)	.....
+ Annual Salary	10,000

REAL COST OF EMPLOYING THE WORKMEN =

Complete the table and calculate the REAL COST OF EMPLOYING THE WORKMAN.

(6)

3. Consider the following 1 hectare paddocks (not drawn to scale)



Indicate (by ticking the appropriate box) the paddock which would be the cheapest to fence around.

4. Consider Paddocks X & Y (Note: 1 hectare = 10,000m^2)

If a sheep fence costs $600/km work out the cost/hectare for fencing around:

a. PADDOCK X

b. PADDOCK Y

c. How does fencing cost/hectare vary as paddock size increases?

(3)

5. What are the reasons for and against having raceways on farms?

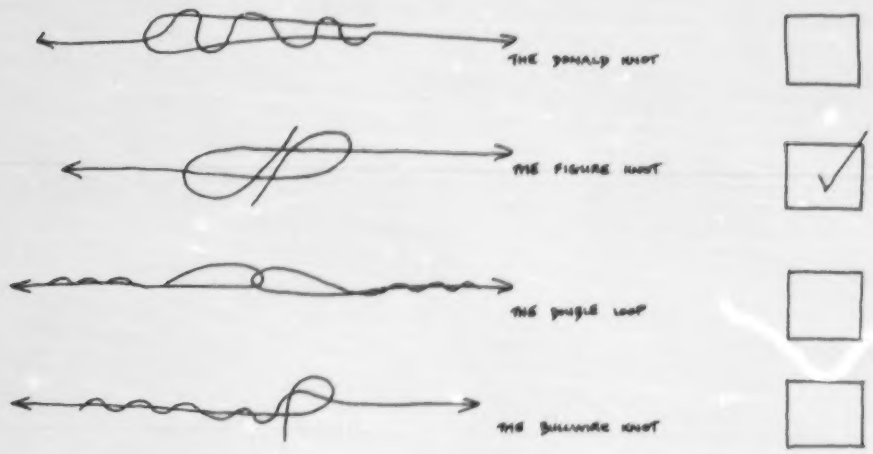
a. Arguments for (give 2)

b. Arguments against (give 2)

(4)

RURAL STUDIES

1. Indicate the most efficient knot for tying fence wire:



(1)

2. Indicate the type of fence post least likely to burn in a bushfire.

green pine posts
creosoted pine posts
untreated mallee posts

(1)

3. Tick the correct statement:

The shorter the strain the better chance you have of keeping a reasonable tension

The longer the strain the better chance you have of keeping a reasonable tension

(1)

4. List 3 advantages of Electric Fence over Conventional Fences.

(3)

5. Tick the correct statement:

The thicker the wire the better the chance you have of keeping a reasonable tension.

The thinner the wire the better the chance you have of keeping a reasonable tension

6. About how much would it cost for the materials for a sheep fence with creosoted pine posts 10 m apart, star droppers 3.3 m apart, 6 plain wires and 1 barb wire on top?

$300/km
$600/km
$900/km
$1200/km

(1)

7. What do each of the following letters and numbers mean when applied to a car tyre:?

HR 185 x 14

(4)

8. Convert 25 lb/square inch to Kilopascals.

(1)

9. List 3 factors to consider when selecting an appropriate tyre for the farm utility.

(3)

10. Give 2 examples of Non-renewable Energy Sources.

(2)

11. Give 1 example of a Renewable Energy Source...

(1)

12. Consider a driving trip from Port Lincoln to Adelaide. At 100 km/hr you average 10 km litre of petrol (28 m.p.g.)

TRUE FALSE

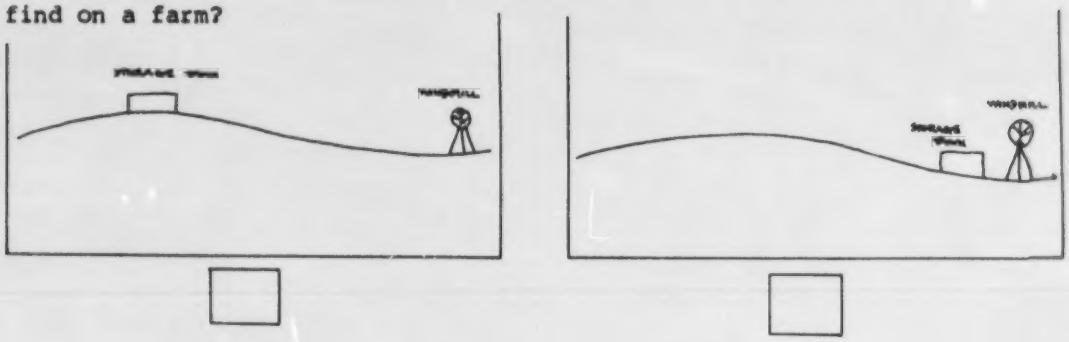
If you drive at 120 km/hr you would get there sooner so you would use less petrol.

If you drove at 80 km/hr you would take longer to get there so you would use more petrol.

If you drove at 80 km/hr you would use less petrol due to lower wind resistance.

(3)

13. Which of these two water reticulation set ups are you most likely to find on a farm?



Explain why this would be so.

(3)

PLANT STUDIES

1. Describe a programme for the control of rabbits on farms.

(4)

2. What is a drought?

(2)

3. How would the management of your farm change in a drought situation?

(3)

4. Cereal eelworm is a nematode which attacks seedling cereals causing stunting and yellowing of plants:

   a. Outline one management technique used by farmers to control this disease.

b. List 2 other methods of control which may be widely used in future.

(3)

5. Assume that your wheat crop this year has been severely affected by Septoria Leaf Blotch. What can you do to reduce the possibility of the disease occurring again next year?

(2)

6. Your cereal crops were severely affected by Covered Smut (or Stinking or Ball Smut) last year. What can you do to reduce the possibility of the disease occurring again this year.

(2)

6. Match the insect pests, their identities and the damage they cause:

INSECT NAME

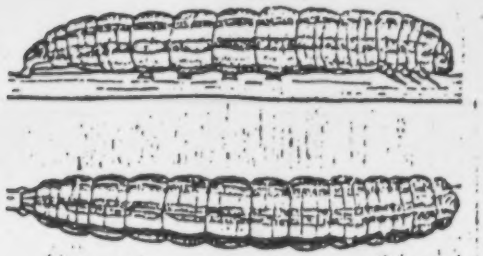
1. SITONA WEEVIL

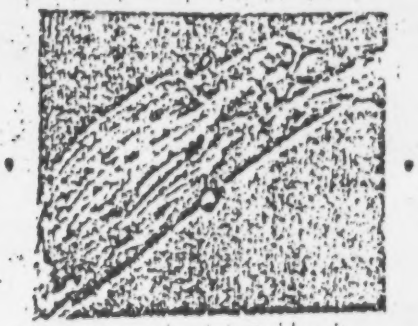
2. RED LEGGED EARTH MITE

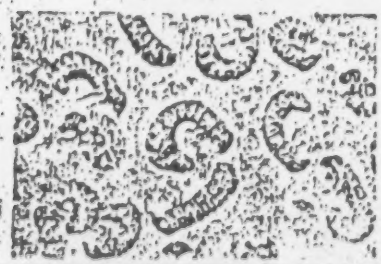
3. BARLEY GRUB

4. PASTURE COCKCHAFER

INSECT IDENTITY

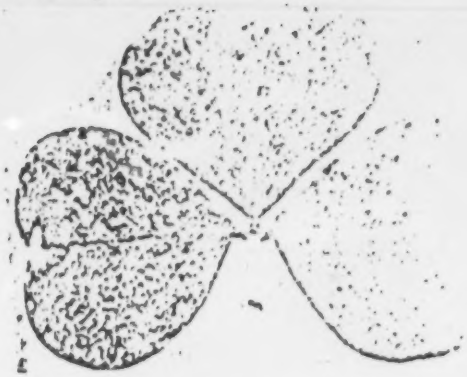






DAMAGE

Damage



Bare areas in pasture or crop
Tunnels with small mounds on the soil surface.

In barley-stem eaten off and heads fall to ground. In wheat, grain is eaten out of the heads.

5. What are the benefits to Animal Breeders of a high lambing percentage?

(2)

6. What is the most effective way for Animal Breeders to increase the lambing percentage of their flocks?

(1)

7. Why are chromosomes and their genes important to Animal Breeders?

(1)

RURAL STUDIES

1. Name 3 diseases that may cause 'ill-thrift' in weaner sheep.

(3)

2. Name 2 symptoms of Clover Disease in sheep.

(2)

3. What steps can be taken to prevent or reduce lupinosis in sheep?

(2)

4. What is the recommended treatment for mycotic dermatitis (or Lumpy wool)?

(2)

10 (b) TRAINEE REACTION QUESTIONNAIRE

ON-FARM TRAINING SCHEME

SECOND BLOCK RELEASE

Course Evaluators are interested in your opinions about each topic of the On-Farm Training Scheme.

Please be quite frank in your answers, regardless of whether they are positive or negative. There is no need to indicate your name. Please answer each item. Your answers will enable improvements to be made to future courses.

Please indicate your opinion on each item by circling the appropriate number of the five point scale. For example, if you found the lecturer reasonably easy to hear, number 4 would be circled as indicated:

Easy to hear 5 4 3 2 1 difficult to hear

Name of Lecturer .....

Topic .....

SUBJECT MATTER

1.	Easy to understand	5	4	3	2	1	difficult to understand
2.	Too much material	5	4	3	2	1	too little material
3.	Useful	5	4	3	2	1	not useful

Are there other comments you would like to make about the subject matter?

.....
.....
.....

USE OF TEACHING AIDS

4.	Chalkboard: easy to read	5	4	3	2	1	difficult to read
5.	Overhead projector: transparencies easy to read	5	4	3	2	1	difficult to read
6.	Overhead projector: sufficient time to read transparencies	5	4	3	2	1	insufficient time to read
7.	Slides: relevant to lesson	5	4	3	2	1	not relevant to lesson
8.	Slides: sufficient time to view	5	4	3	2	1	not sufficient time
9.	Makes good use of examples and aids	5	4	3	2	1	never gives examples or uses aids
10.	Has the reference book been useful	5	4	3	2	1	not useful

11. Were the handout sheets useful	5	4	3	2	1	not useful

Are there other comments you would like to make about the use of teaching aids?

.....

.....

.....

PRACTICALS/DEMONSTRATIONS

12. Are relevant to the lecture series	5	4	3	2	1	not relevant
13. I would like more practical sessions	5	4	3	2	1	I would like fewer practical sessions
14. Have been well organized	5	4	3	2	1	poorly organized
15. Are held too long after the relevant lecture	5	4	3	2	1	soon after the lecture
16. Did you consider attendance at this college to be worthwhile?	5	4	3	2	1	not worthwhile

Are there other comments you would like to make about practicals/demonstrations/attendance at college?

.....

.....

.....

ASSIGNMENTS/PROJECTS

17. Relevant to the lecture series	5	4	3	2	1	not relevant
18. Too many assignments	5	4	3	2	1	too few assignments
19. I get sufficient feedback from the lectures about my assignments	5	4	3	2	1	insufficient feedback

HAVE YOU ANY OTHER COMMENTS TO MAKE ABOUT THIS 'BLOCK' OF TRAINING?

.....

.....

.....

THANK YOU FOR ANSWERING THIS QUESTIONNAIRE

10 (c) TRAINEE RESPONSES TO FOURTH BLOCK RELEASE TRAINEE QUESTIONNAIRE

FARM MANAGEMENT

I SUBJECT MATTER		Mean	Std.Dev^n	Range	N
1. Easy to understand (5)	Difficult to understand (1)	4.1	0.74	3-5	21
2. Too much material (5)	Too little (1)	3.1	0.47	2-4	21
3. Useful (5)	not useful (1)	4.2	0.60	3-5	21
II USE OF TEACHING AIDS					
4. Chalkboard: easy to read (5)	hard to read (1)	4.7	0.49	4-5	21
5. O/H Projector: easy to read (5)	hard to read (1)	3.9	1.11	2-5	21
6. O/H Projector: sufft. time to read (5)	insufficient time (1)	3.6	1.27	2-5	20
7. Slides - relevant (5)	not relevant (1)	4.1	0.72	3-5	18
8. Slides - sufficient to view (5)	insufficient time (1)	4.2	0.79	3-5	18
9. Good use of examples (5)	never uses examples (10)	4.2	0.54	3-5	21
10. Reference book useful (5)	not useful (1)	3.5	0.94	1-5	17
11. Handout sheets - useful (5)	not useful (1)	4.4	0.74	2-5	21
III PRACTICALS/DEMONSTRATIONS					
12. Relevant (5)	not relevant (1)	4.4	0.51	4-5	23
13. More practicals (5)	fewer practicals (1)	3.7	0.88	2-5	23
14. Well organized (5)	Poorly organized (1)	4.3	0.54	3-5	23
15. Too long after lecture (5)	Soon after lecture (1)	3.0	0.93	1-5	23
16. Attendance worthwhile (5)	Not worthwhile (1)	4.4	0.67	3-5	23
IV ASSIGNMENTS/PROJECTS					
17. Relevant to lectures (5)	Not relevant (1)	4.0	0.71	3-5	23
18. Too many assignments (5)	Too few (1)	3.1	0.69	2-5	23
19. Sufficient feedback about assignments (5)	insufficient (1)	3.2	0.94	1-5	23

TECHNICAL STUDIES

I SUBJECT MATTER		Mean	Std.Dev^n	Range	N
1. Easy to understand (5)	difficult to understand (1)	3.5	0.77	2-5	25
2. Too much material (5)	too little (1)	2.9	0.45	2-4	20
3. Useful (5)	Not useful (1)	4.6	0.57	3-5	25
II USE OF TEACHING AIDS					
4. Chalkboard - easy to read (5)	hard to read (1)	4.0	0.57	3-5	20
5. O/H Projector - easy to read (5)	hard to read (1)	3.8	0.62	3-5	20
6. O/H Projector - sufft. time to read (5)	insufficient time (1)	3.2	0.75	3-5	20
7. Slides - relevant (5)	Not relevant (1)	3.7	0.75	3-5	18
8. Slides - sufficient time to view (5)	insufficient time (1)	3.9	0.77	3-5	16
9. Good use of examples (5)	never uses examples (1)	4.1	0.62	3-5	19
10. Reference Book useful (5)	not useful (1)	3.4	0.89	1-5	16
11. Handout sheets - useful (5)	not useful (1)	4.2	0.83	2-5	20
III PRACTICALS/DEMONSTRATIONS					
12. Relevant (5)	not relevant (1)	4.4	0.66	3-5	23
13. More practicals (5)	Fewer practicals (1)	3.9	0.85	3-5	23
14. Well organized (5)	Poorly organized (1)	3.8	0.68	2-5	24
15. Too long after lecture (5)	soon after lecture (1)	2.9	1.04	1-5	23
16. Attendance worthwhile (5)	not worthwhile (1)	4.3	0.65	3-5	23
IV ASSIGNMENTS/PROJECTS					
17. Relevant to lectures (5)	not relevant (1)	3.8	0.79	2-5	23
18. Too many assignments (5)	too few (1)	3.2	0.77	2-5	21
19. Sufficient feedback about assignments (5)		3.1	0.99	1-5	22

PLANT STUDIES

I SUBJECT MATTER		Mean	Std.Dev^n	Range	N
1. Easy to understand (5)	difficult to understand (1)	3.7	0.88	2-5	22
2. Too much material (5)	too little (1)	3.1	0.47	2-4	22
3. Useful (5)	Not useful (1)	4.5	0.51	3-5	22
II USE OF TEACHING AIDS					
4. Chalkboard - easy to read (5)	hard to read (1)	4.1	0.68	3-5	22
5. O/H Projector - easy to read (5)	hard to read (1)	4	0.67	3-5	21
6. O/H Projector - sufft. time to read (5)	insufficient time (1)	3.6	0.74	2-5	21
7. Slides - relevant (5)	Not relevant (1)	4.2	0.75	3-5	21
8. Slides - sufficient time to view (5)	insufficient time (1)	3.9	0.91	2-5	21
9. Good use of examples (5)	never uses examples (1)	4.0	0.72	3-5	22
10. Reference book - useful (5)	not useful (1)	3.4	0.85	1-5	18
11. Handout sheets - useful (5)	not useful (1)	4.5	0.67	3-5	22
III PRACTICALS/DEMONSTRATIONS					
12. Relevant (5)	not relevant (1)	4.1	0.60	3-5	23
13. More practicals (5)	Fewer practicals (1)	3.8	0.73	2-5	23
14. Well organized (5)	Poorly organized (1)	4.0	0.71	3-5	23
15. Too long after lecture (5)	soon after lecture (1)	3	0.77	1-5	21
16. Attendance worthwhile (5)	not worthwhile (1)	4.3	0.77	3-5	23
IV ASSIGNMENTS/PROJECTS					
17. Relevant to lectures (5)	not relevant (1)	4.1	0.46	3-5	23
18. Too many assignments (5)	too few (1)	3.2	0.79	2-5	23
19. Sufficient feedback about assignments (5)	insufficient (1)	3.4	0.89	2-5	23

ANIMAL STUDIES

I SUBJECT MATTER		Mean	Std.Dev^n	Range	N
1. Easy to understand (5)	difficult to understand (1)	3.6	0.81	2-5	21
2. Too much material (5)	too little (1)	3.3	0.64	2-5	20
3. Useful (5)	Not useful (1)	4.7	0.47	4-5	20
II USE OF TEACHING AIDS					
4. Chalkboard - easy to read (5)	hard to read (1)	4.1	0.64	3-5	20
5. O/H Projector - easy to read (5)	hard to read (1)	4	0.69	3-5	18
6. O/H Projector - Sufft. time to read (5)	insufficient time (1)	3.5	0.75	2-5	17
7. Slides - relevant (5)	Not relevant (1)	4.2	0.73	3-5	17
8. Slides - sufft. time to view (5)	insufficient time (1)	4.2	0.71	3-5	18
9. Good use of examples (5)	never uses examples (1)	4.1	0.85	2-5	21
10. Reference book - useful (5)	not useful (1)	3.9	1.05	1-5	17
11. Handout sheets - useful (5)	not useful (1)	4.8	0.44	4-5	20
III PRACTICALS/DEMONSTRATIONS					
12. Relevant (5)	not relevant (1)	4.4	0.58	3-5	23
13. More practicals (5)	Fewer practicals (1)	3.8	0.72	2-5	23
14. Well organized (5)	Poorly organized (1)	4.2	0.74	3-5	23
15. Too long after lecture (5)	soon after lecture (1)	2.9	1.01	1-5	23
16. Attendance worthwhile (5)	not worthwhile (1)	4.5	0.59	3-5	24
IV ASSIGNMENTS/PROJECTS					
17. Relevant to lectures (5)	not relevant (1)	4	0.69	3-5	22
18. Too many assignments (5)	too few (1)	3.1	0.83	1-5	22
19. Sufficient feedback about (5)	insufficient (1)	3.4	0.97	2-5	21

ON-FARM TRAINING SCHEME

TRAINEE REACTION QUESTIONNAIRE

FOURTH BLOCK RELEASE - COMMENTS MADE BY ≥ 2 TRAINEES

I FARM MANAGEMENT

Topics covered were good, interesting (6)

Half completed notes were a good idea (2)

II TECHNICAL STUDIES

Generally good, interesting (4)

Fencing, windmills - very interesting (3)

III ANIMAL STUDIES

Good lectures (4)

Interesting topics (4)

Disease - useful but boring (2)

- O.K. (1)

IV PLANT STUDIES

Visits were very useful (5)

Too much time spent on rabbits (4)

Hand out notes will be useful (2)

APPENDIX 11

COLLATED RESULTS AND COMMENTS FOR FARM SKILLS ASSESSMENTS

	10 RANGE	10 OF TRAINEES	FINDINGS	COMMENTS
Tractor Maintenance and operation.	60–69 70–79 80–89 90–99	8 15 69 8 100	Trainees generally performed well. 77% scoring more than 80%.Tractor operation tended to be more satisfactorily performed than tractor maintenance—possibly because the Master Farmers tended to be more reluctant to give the responsiblity for tractor maintenance to the trainee.	Tractor driving was an excellent exercise thoroughly enjoyed by trainees. Tractor maintenance was considered a more important aspect. It was agreed that tractor maintenance be included as part of the Block Release teaching programme before that skill is assessed on the farm.
Harvester Maintenance and Operation.	< 59 60–79 80–99 100	4 46 38 12 100	Description of harvester operations and maintenance was generally good (50% scored more than 80%) and tended to reflect cropping experience and information retained from the Harvester Field Day.	Many Master Farmers requested assistance with the instruction of the harvester maintenance and operation skill. A Harvester Field Day was subsequently conducted at Cummins for the benefit of Master Farmers and Trainees.
Sheep Handling and Crutching	70–79 80–89	35 65 100	Trainees generally handled and crutched sheep well. (65% scored more than 80%) Low scores tended to reflect the low priority given to the sheep enterprise on some farms.	Many Master Farmers and trainers expressed a desire for shearing to be one of the skills included in the formal teaching programme. Although one Master Farmer conducted a shearing school for some of the trainees, D.F.E. policy was not to become formally involved in this specialised area of training.
Sheep Slaughtering and Butchery	50–59 60–69 70–79 80–89	4 63 29 4 100	Trainees generally demonstrated an overall lower level of mastery of the sheep slaughtering skill. Only 4% scored more than 80%. Many trainees demonstrated inadequate offal disposal methods—despite their realization that such methods were unhygienic. The problem seemed to be a lack of acceptance by the Master Farmer of approved disposal methods.	Sheep killing was demonstrated by a butcher during the second block release. In future active participation by trainees may make this a more effective learning exercise. The importance of hygienic offal disposal should be stressed for Master Farmers as well as for trainees.
Welding Test A practical welding test was given during the last block release.	50–59 60–69 70–79 80–89	4 46 42 8 100	Many Master Farmers were pleased with the competence shown by their trainees at the welding skill. They considered it a very necessary skill on the farm.	

APPENDIX 12

EVALUATION STANDARDS APPLIED TO THE PROJECT DURING PARTICULARLY THE ANALYSIS AND REPORTING PHASES

To interpret the information below, the reader needs to refer to the full text of the standards for evaluation as they appear in document Standards for evaluations of educational programs, projects and materials. Joint Committee on Standards for Educational Evaluation, New York : McGraw - Hill, 1980.

The evaluation standards and relevant to the development of the analysis and reporting phases in particular.

The standards were applied as indicated below:

EVALUATION STANDARD	COMMENTS
A. Utility	
1. Audience identification	DFE; Dept. of Agriculture; DEYA; UF&S; ED; Roseworthy Agricultural College· Course Management Committee (Eyre Penin.); other Course Management Committees; interstate and overseas colleagues.
2. Evaluator credibility	Standard applicable.
3. Information scope and selection	Standard applicable.
4. Valuational interpretation	Standard applicable.
5. Report clarity	Project document format adequate.
6. Report dissemination	Standard deemed applicable in that hard copy reports distributed and microfiche version available from TAFE Clearinghouse.
7. Report timeliness	Progress reporting timely; project document produced in 1980 (some months lag due mainly to lack of resources); final report produced in 1981 (progress hindered by lack of resources)
8. Evaluation impact	Recorded in report for short and medium term. Request for long term effect will be made next year.

B. Feasibility	
1. Practical procedures	Standard applicable.
2. Political viability	Standard applicable (in-committee phase very important for clarifying action to be taken before public release occurred).
3. Cost effectiveness	Later phases especially, highly cost effective as zero project management cost and 3 weeks project officer cost.
C. Probity	
1. Formal obligation	Standard applicable given changes in referent groups.
2. Conflict of interest	Standard applicable. Resolution of conflict of interest in favour of probity requirement.
3. Full and frank disclosure	Standard deemed applicable.
4. Public's right to know	" " "
5. Rights of human subjects	" " "
6. Human interactions	" " "
7. Balanced reporting	" " "
8. Fiscal responsibility	" " "
D. Accuracy	
1. Object identification	" " "
2. Context analysis	" " "
3. Described purposes and procedures	" " "
4. Defensible information sources	" " "
5. Valid measurement	" " "
6. Reliable measurement	" " "
7. Systematic data control	" " "
8 Analysis of quantitative information	" " "

9. Analysis of qualitative information	Standard deemed applicable
10. Justified conclusions	" " " (evidence that recommendations and action taken was consistent with formative and summative evaluation phases).
11. Objective reporting	" " "